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JOB SATISFACTION OF PHYSICAL EDUCATION TEACHERS IN THE EDMONTON SCHOOL SYSTEMS

by

© THOMAS J. KENDALL

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

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THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "The Job Satisfaction of Physical Education Teachers in the Edmonton School Systems," submitted by Thomas John Kendall in partial fulfillment of the requirements for the degree of Master of Arts.

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ABSTRACT

The primary purpose of the study was to identify the feelings of satisfaction and dissatisfaction of the physical education teachers of the Edmonton Public and Separate School Systems toward thirty-five selected job factors. Edwin Locke's Discrepancy Model was utilized to investigate the discrepancy between what teachers perceived as existing and what they preferred to exist with respect to the selected job factors, and to identify the relationship between this perceived discrepancy and their satisfaction responses. Finally, the teachers indicated the importance that they attached to each of the job factors.

The data were collected by means of a four section instrument called "The Job Situation Questionnaire", which was distributed and returned by mail. Three sections of the questionnaire were used to identify the discrepancy, satisfaction, and importance responses to the thirty-five job factors. The fourth section was utilized to collect biographic and demographic information about the teachers and the schools in which they taught. Data analysis was achieved using the S. P. S. S. Frequency, One Way Analysis, and Pearson Correlation programmes.

For the purpose of analysis, the job factors were grouped into four categories - the instructional program, the extracurricular program, the psychological needs category, and the general environmental category. A ranking of the mean satisfaction scores indicated that the teachers were most satisfied with the psychological need category and showed decreasing satisfaction with the instructional program, the environmental category, and the extracurricular program, respectively. A ranking of the mean discrepancy scores, however, indicated an inverse order of the categories. The highest mean discrepancy was the extracurricular pro-

gram and the discrepancy scores decreased for the environmental category, the instructional program, and the psychological need category. This inverse relationship lends support to Locke's theory which purposes that as discrepancy decreases, satisfaction increases, and vice versa. The theory was further supported when a negative relationship was found to exist for correlations between the responses received for the thirty-five factors on the discrepancy and satisfaction questionnaires.

When the teachers were grouped for biographic and demographic variables, significantly different group responses were recorded for the instructional program. Senior high school teachers showed more satisfaction and less discrepancy than junior high school teachers; teachers in schools with large enrollment (1,000 plus) and large physical education departments (6 plus teachers) were more satisfied and showed less discrepancy than teachers in schools with small enrollments (350 to 750 students) and small physical education departments (1 to 3 teachers); teachers between the ages of 29 to 36 years were more satisfied and showed less discrepancy than teachers between the ages of 21 to 28 years; and teachers teaching in grades ten to twelve were more satisfied and showed less discrepancy than teachers teaching in grades seven to nine.

With respect to the importance responses, the teachers regarded the instructional program as being the most important followed by the psychological needs category, the extracurricular program, and the environmental category.

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TABLE OF CONTENTS

Page

LIST OF TABLES

Chapter

1. THE PROBLEM 1
   - Statement of the Problem 2
   - Justification of the Study 3
   - Hypotheses 5
   - Assumptions, Limitations, Delimitations and Definition of Terms 8

2. REVIEW OF LITERATURE 13
   - Theoretical Models of Job Satisfaction 13
   - The Measurement of Job Satisfaction 16
   - Job Factors 20
   - Demographic and Biographic Variables 22
   - Job Satisfaction Research in Physical Education 23
   - Summary 26

3. INSTRUMENTATION AND METHODOLOGY 28
   - The Research Instrument 28
   - Reliability and Validity 33
   - Collection and Treatment of Data 35

4. ANALYSIS OF DATA 37
   - The Sample 37
   - Discrepancy Data 39
   - Satisfaction Data 54
   - Relationship Between Discrepancy Satisfaction and Dissatisfaction 68
   - Importance Data 68

5. DISCUSSION, SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 79
   - Discussion 79
   - Summary 86
   - Conclusions 91
   - Recommendations 92

TABLE OF CONTENTS

(Continued)

Page

BIBLIOGRAPHY 95

APPENDICES

A. The Job Situation Questionnaire 104

B. Follow-Up Letter 121

C. Return Rates for Groupings Within Each Biographic and Demographic Variable 123

D. Analysis of Variance 126

LIST OF TABLES

Table	Description	Page
1	The Sample	37
2	Sample Return Rate by Sex	38
3	Ranked Frequency Distribution, Means and Standard Deviations for Discrepancy Responses	41
4	Rank Order of Mean Discrepancy Scores for Grouped Factors	47
5	The Duncan Multiple Range Analysis of Discrepancy Means for Grouped Factors	48
6	Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Type of School for the Category Concerned with the Instructional Program	50
7	Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Enrollment for the Category Concerned with the Instructional Program	51
8	Mean Discrepancy Scores, Significant Differences and Hypothesis Rejection by Size of Department for the Category Concerned with the Instructional Program	52
9	Mean Discrepancy Scores, Significant Differences and Hypothesis Rejection by Grades for the Category Concerned with the Instructional Program	52
10	Mean Discrepancy Scores, Significant Differences and Hypothesis Rejection by Age for the Category Concerned with the Extracurricular Program	53
11	Mean Discrepancy Scores, Significant Differences and Hypothesis Rejection by Type of School for the Category Concerned with the Extracurricular Program	54

List of Tables (Continued)

Table	Description	Page
12	Ranked Frequency Distribution Means and Standard Deviations for Satisfaction Response	56
13	Rank Order of Mean Satisfaction Scores for Grouped Factors	62
14	The Duncan Multiple Range Analysis of Satisfaction Means for Grouped Factors	63
15	Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Type of School for the Category Concerned with the Instructional Program	65
16	Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Enrollment for the Category Concerned with the Instructioal Program	65
17	Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Size of Department for the Category Concerned with the Instructional Program	66
18	Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Grades for the Category Concerned with the Instructional Program	67
19	Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Age for the Category Concerned with the Extracurricular Program	67
20	Pearson Correlation Coefficients and Mean Scores for Discrepancy and Satisfaction Responses to the Job Factors	69
21	Ranked Frequency Distribution Means and Standard Deviations for Importance Scores	70
22	Rank Order of Mean Importance Scores for Grouped Factors	76
23	The Duncan Multiple Range Analysis of Importance Means for Grouped Factors	77
24	Mean Importance Scores, Significant Differences and Hypothesis Rejection by Grades Taught for Job Factors Concerned with the General Environment	78

Chapter 1

THE PROBLEM

Introduction

The concept of job satisfaction has interested organizational researchers for a prolonged period of time, but consistency in the interpretation of information pertaining to the subject has not been achieved. As Locke has said, "understanding of the causes of job satisfaction has not advanced at a pace commensurate with research efforts" (1969:309). Since research into the area of job satisfaction began, three general approaches have been utilized to explain this phenomenon. The explanations have included the environmental models (Turner and Lawrence, 1965), in which environmental factors were assumed to be determinants of job satisfaction; the personality models, in which satisfaction was the result of personality adjustment to the environment and dissatisfaction was the result of a lack of adjustment to the environment; and the interaction models, in which job satisfaction and dissatisfaction were determined by both environmental and personality variables. The major issue is whether the determinants of job satisfaction exist as factors in the job situation, in the psychological make-up of the individual, or in the interaction between the individual and his work situation. Vroom (1964:99-174) reviewed numerous job satisfaction studies and concluded that the interaction approach was the most favourable.

Job satisfaction and dissatisfaction were, according to Locke, "complex emotional reactions to the job" (1969:314). More specifically,

"job satisfaction and dissatisfaction are a function of the perceived relationship between what one wants from ones job, and what one perceives it as offering or entailing" (1969:316). Satisfaction or dissatisfaction with a particular job factor is affected by the value that the individual holds for the factor, and the discrepancy between this desired value and the perceived amount of the factor actually existing in the job situation.

Investigations have suggested that job satisfaction is related to such factors as morale, performance, motivation, personal relationships, and worker involvement. Since these factors can be instrumental in assisting an organization or individuals in achieving their needs and goals, job satisfaction can be considered as a legitimate area of study.

While extensive investigation regarding this topic has existed in educational institutions, specific subject area consideration of this topic has been minimal. Physical educators have contributed to this area of investigation with studies concerning this topic at the post secondary school level, but there remains a lack of information pertaining to job satisfaction of physical education teachers at the elementary and secondary school levels. Since the largest percentage of physical educators are employed in school systems, a comprehensive knowledge of job satisfaction, as it relates to physical educators, cannot be achieved until further research has been carried out at this level.

STATEMENT OF THE PROBLEM

The central purpose of the study was to determine the satisfaction and dissatisfaction experienced by physical education teachers toward factors present in their job situations.

The following subproblems were also considered:

1. (a) To determine the perceived discrepancy between preferred and existing conditions with respect to selected job factors for physical education teachers.

(b) To determine the difference in reported discrepancies between physical education teachers grouped on the basis of specific biographic and demographic variables.

2. (a) To determine levels of satisfaction for job factors associated with the work situations of physical education teachers.

(b) To determine the differences in reported satisfaction for selected job factors for physical education teachers grouped on the basis of specific biographic and demographic variables.

3. (a) To determine the relationship between the reported discrepancies and the measures of satisfaction on the selected job factors for physical education teachers.

4. (a) To determine the perceived importance of specific job factors.

(b) To determine the differences in reported importance of selected job factors for physical education teachers grouped on the basis of specific biographic and demographic variables.

JUSTIFICATION OF THE STUDY

The area of job satisfaction has been extensively researched in industrial and educational settings. A large proportion of the research concerning the job satisfaction of teachers has extended across many subject areas and has, therefore, generally looked at the job factors common to all teachers.

In the area of job satisfaction pertaining to physical education teachers, studies have been concentrated at the post secondary institutions such as universities and junior colleges. Researchers have, to date, only given minor consideration to elementary and secondary schools, even though this is the institutional level where the largest proportion of physical educators are working.

This study was designed to investigate the job satisfaction of physical education teachers in the Edmonton school systems and the study was justified as follows:

1. Since there have been considerable variations in the research interpretations resulting from conflicting theories and measuring techniques, further studies can help remove some of the confusion that has arisen. This study was based on a previously tested theoretical model and contributed to the information gathered using the model. The proposed model is the discrepancy model described by Edwin Locke (1969:336).

2. The failure of physical education researchers to carry out studies at the elementary and secondary school levels has left a void in the available information pertaining to the job satisfaction of physical educators. It was hoped that this study would assist in the development of more comprehensive knowledge about the factors affecting the job satisfaction of physical educators.

3. Since the sample chosen was specific to Edmonton, the information gained from the study may be of use to those concerned with the administration of the physical education programs in the Edmonton school systems.

HYPOTHESES

Since researchers have shown an inconsistency in the data interpretation concerning job satisfaction, and since there has been little research carried out specifically related to the job satisfaction of physical education teachers, it was decided to formulate the following null hypotheses.

H.1

There will be no significant difference in the reported discrepancy of what physical education teachers prefer and what they perceive as existing between the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category present in their job situation.

H.2

There will be no significant difference in the reported discrepancy between what teachers prefer and what they perceive as existing in the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category, when physical education teachers are grouped on the basis of the following demographic and biographic variables:

H.2.1 Type of School.

H.2.2 Size of School.

H.2.3 Age.

H.2.4 Sex.

H.2.5 Professional training.

H.2.6 Years of teaching in the present school.

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H.2.2 Size of School.

H.2.3 Age.

H.2.4 Sex.

H.2.5 Professional training.

H.2.6 Years of teaching in the present school.

H.2.7 Size of the physical education department.

H.2.8 Level at which physical education teacher teaches physical education classes.

H.2.9 Coaching duties.

H.2.10 Teaching load for physical education classes.

H.3

There will be no significant difference in the reported level of satisfaction or dissatisfaction of physical education teachers between the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category present in their job situations.

H.4

There will be no significant difference in the reported level of satisfaction or dissatisfaction for the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category, between physical education teachers grouped on the basis of the following demographic and biographic variables:

H.4.1 Type of school.

H.4.2 Size of school.

H.4.3 Age.

H.4.4 Sex.

H.4.5 Professional training.

H.4.6 Years of teaching in the present school.

H.4.7 Size of the physical education department.

H.4.8 Level at which physical education teacher teaches physical education classes.

H.4.9 Coaching duties.

H.4.10 Teaching load for physical education classes.

H.5

There will be no relationship between measures of discrepancy on the job factors, and measures of satisfaction on the same factors for physical education teachers.

H.6

There will be no significant difference in the reported importance between grouped job factors concerned with the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category for physical education teachers.

H.7

There will be no significant difference in the importance attached to the physical education instructional program, the extra-curricular program, the psychological need category, and the general environmental category, when physical education teachers are grouped on the basis of the following demographic and biographic variables:

H.7.1 Type of school.

H.7.2 Size of school.

H.7.3 Age.

H.7.4 Sex.

H.7.5 Professional training.

H.7.6 Years of teaching in the present school.

H.7.7 Size of the physical education department.

H.7.8 Level at which physical education teacher teaches physical education classes.

H.7.9 Coaching duties.

H.7.10 Teaching load for physical education classes.

ASSUMPTIONS, LIMITATIONS, DELIMITATIONS AND DEFINITION OF TERMS

Assumptions

This study was undertaken on the basis of the following assumptions:

1. The test instruments used were valid and reliable measures of the physical education teachers' perceptions of factors in their job situation.

2. The teachers' responses were a reliable indication of their perceptions of the designated job factors.

Limitations

Since a questionnaire was used to collect the data for this study, the limitations characteristic of all survey studies existed.

Good has suggested that, "the survey method is static; for example, it reveals the reactions of people at only one point of time" (1972:213).

Other limitations pertaining to this study are as follows:

1. Since the sample originated solely from the city of Edmonton, the findings and conclusions from this study could be used for this population, but could not be generalized to a larger population.

2. The instrument used allowed responses only to those job factors selected by the author. There was no opportunity for respondents to indicate other job factors they may have considered important in determining job satisfaction or dissatisfaction.

Delimitations

The study included the following delimitations:

1. The sample included teachers whose teaching load consisted of one or more physical education classes.

2. The sample was confined to those physical education teachers teaching at elementary, junior high, or senior high schools in the public and separate school systems of Edmonton.

Definition of Terms

Four aspects of the physical education teachers' work situation were identified by the investigator. The job factors specifically related to these aspects were categorized as instructional, extracurricular, psychological need, and environmental. These categories were defined as follows:

Instructional Program. The instructional program was considered to be comprised of those physical education activities which are scheduled as part of the "in-class" teaching timetable of the school.

Extracurricular Program. Extracurricular referred to all activities which are organized by the physical education department, but do not fall into the category of the formal instructional programs. This category would include such areas as the interschool athletic program, the intramural program, outdoor education (not covered in the instructional program), and other physical education activities not offered during the formal instructional program.

Psychological Need Category. This term referred to those factors which are concerned with the personal psychological needs and concerns of the physical education teachers.

General Environmental Category. This term referred to those factors which are concerned with the environmental influences present in the job situation of the physical education teacher, but are not specifically concerned with the instructional program or extracurricular program.

In addition to the categories used to describe the physical education teachers' job situation, other terms which should be defined are as follows:

Preferred-Existing Discrepancy. The term discrepancy in this study referred to the perceived difference between what was preferred and what was perceived to actually exist concerning factors in the job situation of physical education teachers.

Discrepancy Score. The discrepancy score was the measure of the perceived difference between what the teacher preferred and what the teacher perceived as existing for the measured factors in the job situation. A five point Likert type scale was used as follows:

No Discrepancy	Some Discrepancy	Moderate Discrepancy	Large Discrepancy	Extreme Discrepancy
1	2	3	4	5

Job Satisfaction. Locke defined job satisfaction as "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (1969:316). Since this study utilized the theoretical discrepancy model formulated by Locke, it was felt appropriate that his definition of job satisfaction be used.

The term 'value' used by Locke was regarded as being synonomous with the term 'prefers'. The modification in wording was

deemed necessary in the construction of the questionnaire, because the term 'prefers' appeared to cause less confusion for the pilot sample.

Job Dissatisfaction. "Job dissatisfaction is the unpleasurable emotional state resulting from the appraisal of one's job as frustrating or blocking the attainment of one's job values (preferences), or as entailing disvalues" (Locke 1969:316).

Satisfaction - Dissatisfaction Score. A Likert type scale was used to measure the level of satisfaction or dissatisfaction perceived by the respondent towards the stated factors present in the job situation. The scale was as follows:

Completely Dissatisfied	Slightly Dissatisfied	Neither Satisfied Nor Dissatisfied	Slightly Satisfied	Completely Satisfied
1	2	3	4	5

Importance. The term 'importance' in this study referred to the perceived rating of the job factors by the physical education teachers.

Importance Score. The level of importance attached to the job factors by physical education teachers were recorded using the following scale:

Not at all Important	Slightly Important	Fairly Important	Very Important
1	2	3	4

Demographic Variables. These variables were the reported characteristics descriptive of the sample schools. Such variables as type of the school, and the size of the school population were considered to qualify as demographic variables.

Biographic Variables. These variables were the reported descriptive characteristics of the sample physical education teachers. Such

variables as age, sex, professional training, teaching experience, teaching load, position in the department, and extracurricular assignments of the teacher were considered to qualify as biographic variables.

SUMMARY

This chapter has been concerned with identifying the major problems and subproblems investigated in the study. The study was justified in terms of its pragmatic application for the physical education profession, and its value in contributing to the area of job satisfaction research.

The assumptions, limitations, and delimitations of the study were discussed, and the definition of terms of the study were stated.

Chapter 2

REVIEW OF LITERATURE

Job satisfaction is a broad concept, generally used to explain the feelings of satisfaction that individuals have toward their job, or specific factors connected with their job.

Numerous definitions have been put forward to explain the variety of perceptions of the concept of job satisfaction. Smith, Kendall, and Hulin described job satisfaction as "feeling or affective responses to facets of the situation" (1969:6). Johnson and Weiss (1971:9) perceived job satisfaction as an attitude or feeling toward objects or persons. Katzell felt that, "job satisfaction was a species of affect or hedonic tone, for which the stimuli are events or conditions experienced in connection with jobs or occupations" (1964:342). Edwin Locke has described job satisfaction as, "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's job values" (1969:316).

It was concluded from the aforementioned definitions, that job satisfaction is an emotional response to objects or situations encountered by individuals in their job.

THEORETICAL MODELS OF JOB SATISFACTION

Researchers have favoured one of two major approaches in the study of job satisfaction. The majority of research pertaining to job satisfaction has shown that a single factor approach is more commonly

used for research than the two factor method generally attributed to Herzberg.

The single factor model implies that the feelings that an individual may have toward any factor of his job may lie on the single continuum ranging from satisfied to dissatisfied; thus, any factor in the job can cause either satisfaction or dissatisfaction. Researchers using this model have employed various measurement methodologies, but the fundamental concept of the single factor theory is consistent thoughout their work.

The two factor theory, originated by Herzberg, has been used extensively by some researchers, and no discussion of job satisfaction would be complete without recognition of his model. According to Herzberg (1966), the factors which contribute to satisfaction and dissatisfaction are independent of each other. He postulated that one set of factors are responsible for satisfaction, while another set of factors are responsible for dissatisfaction. Certain factors, if not present in the job environment, will cause dissatisfaction; however, the presence of the same factors does not necessarily result in satisfaction. For satisfaction to occur, a different set of factors must be present in the job. The first set of factors (dissatisfiers) are referred to as 'hygiene' factors, and their function is to gratify man's animal need to avoid unpleasant occurrences in his world. Those factors which contribute to satisfaction are termed 'satisfiers', but if they are not present, dissatisfaction does not occur. Herzberg proposed that the 'satisfiers' are motivators and thus enable the individual to realize his need as a human to grow psychologically. The 'satisfiers' include such job content factors as achievement,

recognition for achievement, work itself, responsibility, and advancement. The 'dissatisfiers' include such job content factors as company policy and administration, supervision, salary, interpersonal relations, and working conditions.

The major assumption of the model is that the satisfiers are motivational and therefore satisfying, while the 'hygiene' factors are not motivational, and therefore not satisfying. This assumption may be invalid if one considers the views of Maslow and his need gratification theory (1943). Maslow has stated, "An organism is dominated and its behaviour organized only by unsatisfied needs" (1943:29). He further proposed that individuals function at different need levels and can fluctuate throughout a hierarchy ranging from physiological to self actualizing needs. In view of Maslow's theory, it would appear that even those needs defined by Herzberg as animal needs, and their corresponding job factors, can, in fact, be motivating and satisfying to individuals operating at that need level.

Some researchers have supported the two factor theory, while others have refuted it. Solimán (1970:452-461) referred to a number of studies which attempted to test the motivation-hygiene theory, and its relationship to the one factor theory. He concluded that when Herzberg's critical incident interview technique was used, the theory could be supported, but when different measurement techniques were used, the motivation factors and the hygiene factors were found to have the capability of producing both satisfaction and dissatisfaction. In view of the evidence brought forth by Soliman and others, it is evident that the one factor theory is preferable for investigating the relationship between job factors and job satisfaction.

MEASUREMENT OF JOB SATISFACTION

The diverse conceptual models of job satisfaction are not the only cause of the inconsistent and inconclusive findings obtained from the numerous job satisfaction studies. There is, in addition to different views on the concept, also diverse methods for the measurement of job satisfaction.

The measurement of satisfaction and dissatisfaction has varied, depending on the researchers conceptualization of what job satisfaction was in operational terms. Measurement techniques have been designed to fit the operational definitions of the term job satisfaction.

Two basic measurement methods have appeared most frequently in the job satisfaction literature; these are the amount method and the discrepancy method.

Wawruck (1971:41-44) referred to the 'amount model', and described a process in which individuals perceive 'amounts' of a job factor in their job. This perception then leads to a cognitive judgement of the amount of the factor against a particular standard held by the individual, and is followed by a feeling of satisfaction or dissatisfaction. A problem with the amount model is that it does not specifically identify the standard used by the respondent. It therefore, prevents the researchers from identifying and analysing the elements inherent in the cognitive judgement, and its relationship to the satisfaction response. In view of these restrictions, any attempt to establish a causal relationship between the amount of a job factor and satisfaction may be invalid.

The discrepancy model has been utilized quite extensively in recent years. Porter (1961) defined satisfaction as the difference

between responses to a "How much is there now?" question, and responses to a "How much should there be?" question, when these two questions were asked for each factor in the job situation. Wanous and Lawler (1972:96) diagrammed this relationship as follows:

JS = (Should Be - Is Now)

The Minnesota studies on work adjustment (Loftquist and Dawis, 1969) designed a satisfaction questionnaire in which respondents were asked to determine between what they would have liked to receive, and what they actually received.

A significant contribution to discrepancy theory has been made by Edwin Locke (1969:309-336). Locke was critical of other investigators and their approach to the measurement of job satisfaction, and felt that the inconsistency in research findings were the result of what he termed "correlation without explanation" (1969:311). Locke's major argument was that many investigators have attempted to measure job satisfaction and correlate these measurements with other variables, without attempting to determine the cause of the satisfaction response. The contradiction in findings for duplicated studies was thought to be a function of this policy of obtaining measures of satisfaction, or dissatisfaction, without explaining the inherent qualities or characteristics of the response. Locke has stated:

> The solution to this state of affairs is to seek explanation in behavior in terms of attributes of entities; and to identify the nature of the processes one is dealing with before attempting to measure them, and to relate them to other processes. Conceptual analysis must precede explanation and measurement (1969:314).

The theoretical model of job satisfaction proposed by Locke has attempted to show the relationship between perception, value, and emotional response. Locke described his model as being concerned with

"... the nature of emotions and their relationship to evaluation ..." (1969:314). Evaluation, as it relates to job factors, is seen as a process of perceiving the difference between what one sees as existing in the job and what one would like to have exist in that job. The emotional response (satisfaction or dissatisfaction) is a resultant of the perceived difference (discrepancy).

Job satisfaction and job dissatisfaction have been defined by Locke as follows:

> Job satisfaction is the pleasurable emotional state resulting from one's job as achieving or facilitating the achievement of one's job values. Job dissatisfaction is the unpleasurable emotional state resulting from the appraisal of one's job as frustrating or blocking the attainment of one's job values or as entailing disvalues (1969:316).

He proposed that the psychological processes involved in determining satisfaction include, a) the perception of some aspect of the job, b) an implicit or explicit value standard (a value refers to something one wishes to gain or keep [Rand 1964:15], and the value standard in this case is the level or amount of the job factor desired by the individual), and c) a conscious or subconscious judgement of the discrepancy between one's perception of the factor in a job and one's value or desired amount of the factor.

Diagrammatically, Locke's model identified job satisfaction as follows:

JS = (Would Like - Is Now)

Basically, the model proposed that the level of satisfaction, or dissatisfaction felt by an individual toward a job factor will depend largely upon the discrepancy between the perception of the amount of the factor presently existing in the job, and the amount of the factor preferred. The greater the dicrepancy in the two perceptions, the more

pronounced will be the dissatisfaction. Alternatively, as the discrepancy decreases, satisfaction will increase, until complete satisfaction is achieved when no discrepancy exists.

According to Locke, the variable influencing the strength of satisfaction or dissatisfaction within an individual is the perceived importance of the factor. He felt that the importance an individual attaches to a particular job factor will influence his satisfaction response. Locke's basic concept proposes that individuals attach different levels of importance to different factors within the job. For a given discrepancy level, the more important a factor is perceived to be by the individual, the more satisfied or dissatisfied he will be with the factor. Locke illustrated the principle in an experiment in which twenty-one subjects were asked to press a switch between 450 and 550 milliseconds after a visual stimulus was presented. They were allowed practise trials, and experimental trials, and in the latter trials, they were paid 25¢ to 35¢ for success. For those persons who said the experimental trials were more important than the practise trials, analysis showed that success caused more satisfaction, and failure more dissatisfaction on the trials considered more important (1969:329).

Importance has caused some disagreement in the measurement of overall job satisfaction. Some investigators (Blood, 1971; Decker, 1955; Ewen, 1967; Mikes and Hulin, 1968; Schaffer, 1953) felt that overall job satisfaction should be a weighted sum of job factor satisfaction. In other words, they use a multiplicative model, in which the importance rating for each factor is multiplied by the satisfaction rating for the same factor before summing the factors for overall job satisfaction. Locke, however, argues that this process is unnecessary since

"importance is already included in and reflected by the satisfaction ratings" (1969:331). To illustrate this point, Locke and Mobley (1970) carried out investigations testing both methods, and they found that the correlations between the sum of the weighted job factors, and the overall measures of job satisfaction were not significantly different from the correlation between the sum of the unweighted factors and the overall measures of job satisfaction.

JOB FACTORS

Many studies in the area of job satisfaction have attempted to identify those factors in the job that lead to satisfaction and dissatisfaction. Studies by Rudd and Wiseman (1962), Kenneke (1969), Havalick (1968), Okonkwo (1966), Chase (1952), Sergiovanni (1967), Rempel and Bentley (1963), McLaughlin and Shea (1960), Bidwell (1955), Erickson (1972), Thompson (1971), Hinricks (1968), Holdaway (1971), Coverdale (1973), Ross and Zander (1957), Vroom (1964), Conville and Anderson (1956), and Francouer (1963) were reviewed, and the following factors appeared most frequently as job factors determining satisfaction, and/or dissatisfaction.

Curriculum content and curricular rigidity were found to be significant factors in determining job satisfaction. Other factors influencing the job satisfaction of teachers were teacher-student relationships, the ability levels of students, student attitudes, the amount of discipline and control the teacher had over students, and class size. Excessive work loads contributed to responses of dissatisfaction, as did extra supervisory duties. Facilities and equipment have also been identified as factors contributing to satisfaction and dissatisfaction. The organizational climat had some influence on the job

satisfaction of its workers, and rigid organizations seemed to elicit a dissatisfaction response, while flexible organizations improved satisfaction. Similar findings have arisen with the type of administration, and the policies and procedures used in the organization. In addition, workers considered the relationship with their superiors an important factor in determining satisfaction and dissatisfaction. The interrelationship of staff members has been shown to be important to teachers, as have the relationships of the teacher with parents and the community. Salary has been used extensively as a factor in job satisfaction studies, but its importance as a major determinant of satisfaction has varied greatly from study to study. It is felt by some researchers that since there is no limit to the amount of salary a person wants, there is invariably a great discrepancy between what a teacher is getting, and what he would wish to earn; as a result, there will always be some degree of dissatisfaction when considering salary as a job satisfaction factor. The equity theory, however, suggests that an individual can establish a realistic upper limit for preferred salary by considering what is a fair and equitable salary for his training and experience.

Most of the aforementioned factors are considered as environmental factors. Many studies have concluded that intrinsic, psychological factors are more important than extrinsic factors in contributing to satisfaction and dissatisfaction (Freidlander, 1964; Wernimont, 1966; Starcerick, 1972; Burke, 1966; Ross and Zander, 1957). These intrinsic psychological factors are concerned with security, prestige, recognition, responsibility, perceived advancement, as well as satisfaction with teaching, and the challenge of the work.

DEMOGRAPHIC AND BIOGRAPHIC VARIABLES

Numerous demographic and biographic variables have been used to distinguish between individuals in job satisfaction research.

Age appeared to be an important variable in determining different levels of satisfaction with the job. Studies by Karolet (1971), Okonkwo (1966), and research carried out by the University of Michigan Survey Research Centre (1971), and the National Education Research Bulletin (1969) concluded that satisfaction with the job increases with age.

Length of experience would also appear to be a determining variable in job satisfaction, with the likelihood of differences in job satisfaction existing between beginning teachers and those with lengthy experience. Research by Aikenhead (1960), and research appearing in the National Educational Research Bulletin (1969) concluded that those teachers with extensive experience tended to be more satisfied than beginning teachers, or teachers with little experience. Breer and Locke (1965) proposed that individuals who had been in a particular organization for a lengthy period of time would have more completely accepted the policies, procedures, and goals of the system than junior staff members. Therefore, the teachers with lengthy service in an organization might be less critical and will perceive less discrepancy between what they perceive as existing and what they would prefer to exist.

Investigations using sex as a distinguishing variable between groups produced conflicting results. Hulin and Smith (1964:91) found that female plant workers were less satisfied with their jobs than their male counterparts. Karolat (1971:iii-iv) and Okonkwo (1966:iv) found that female teachers were generally more satisfied than male teachers.

Finally, school size and school level are considered distinguishing variables in job satisfaction. The National Educational Research Bulletin reported that junior high school teachers were less satisfied than their senior high school counterparts. Irwin (1965) found that physical education teachers had heavier work loads than other subject area teachers, that physical education teachers in smaller schools felt they worked under more strain than the teachers in larger schools, and that physical education teachers, if given the opportunity, would appear less likely to again choose physical education as a career.

JOB SATISFACTION RESEARCH IN PHYSICAL EDUCATION

Three Canadian job satisfaction studies pertaining to physical education were performed by Juni Daniel, Larry Maloney and Dan McAffery. Daniel, in an article entitled "Faculty Job Satisfaction in Physical Education and Athletics" (1975), presented the findings of a study in which he investigated role differentiation and job satisfaction in departments of physical education and recreation in selected Ontario universities. Using the Job Description Index (JDI) devised by Smith, Kendall and Hulin (1969), he measured five factors in the job situation. These factors included work itself, pay, promotion, supervision, and co-workers, with the total score expressing total job satisfaction. The faculty members were grouped on the basis of their roles in the physical education or athletic departments and on various biographic and demographic variables selected by the researcher. Daniel found that the physical educators in the study did not differ significantly in the satisfaction responses towards the nature of the work itself, the characteristics of supervision, or the relationships with co-workers. For the factor concerned with pay, Daniels found that female academic staff were

more satisfied with their salaries than female non-academic staff, and that academic and senior administrative staff were more satisfied than non-academic, and junior, non-tenured staff. The major differences between physical educators in Daniels' study arose on the factor concerned with promotional opportunities. Senior academic administrators, teachers in academic programs, tenured teachers, and teachers with three degrees, were all more satisfied than their junior, non-tenured, non-academic colleagues. Finally, some differences were observed on the total job satisfaction score, with academics being more satisfied than service oriented teachers. Differences for total job satisfaction were also found to exist between the different institutions investigated in the study.

Maloney (1975) investigated the job satisfaction of physical educators in physical education departments, schools, and faculties in English speaking Canadian universities. There were three basic purposes of the study: a) to investigate the relationship between satisfaction and preferred-perceived discrepancy, b) to investigate the relationship between global and specific measures of satisfaction, and c) to investigate the relationship between selected demographic and biographic variables and satisfaction.

Fifty-one job items and four job categories were investigated in the study. The job categories were concerned with the physical educator's coaching responsibilities, teaching responsibilities, research responsibilities, and responsibilities for community involvement.

Maloney reported that a negative, inverse relationship existed between satisfaction and discrepancy in the job factors, and the job areas. He also revealed that the score received from the respondents

for overall job satisfaction was highly correlated with the satisfaction scores reported on the specific job factors and on the four job categories.

When the physical educators were grouped using specific biographic and demographic variables, Maloney established that significant differences between the groups occurred for the job factors and job categories.

Satisfaction with the research category was found to increase as the physical educators received a higher rank, or increased in years of experience as an academic staff member. The satisfaction scores recorded for the job as a whole increased as the physical educators increased in age, years of experience, and academic rank. Maloney reviewed the overall scores for the fifty-one individual job factors and concluded that males were more satisfied than females, and that satisfaction increased with age. He also reported that the universities and colleges with the smallest and largest physical education departments recorded higher job factor scores for satisfaction than other departments. If one is concerned about staff satisfaction, these findings would indicate that there may be an optimum size for a department.

A study by McCaffery (1976) was designed to examine the relationship between the job satisfaction level of physical education teachers, and a) the attitude of the students toward physical education teachers, and b) the attitude of students toward the activities taken in compulsory physical education classes. McCaffery reported that there was a positive relationship between the job satisfaction level of the teacher and the expressed students' attitudes toward physical education in general. There was also a tendancy shown toward a positive relationship

between the level of job satisfaction of the teacher, and the students' attitudes toward the activities taken in the physical education class.

SUMMARY

Job satisfaction has been studied using a variety of theoretical models and measurement techniques. The numerous definitions put forward to explain job satisfaction, would indicate that researchers have differed in their perceptions of this phenomenon. It might be concluded that job satisfaction is an emotional reaction resulting from one's perception and appraisal of objects or situations encountered in one's job.

Two specific theoretical modesl have been used to conceptualize job satisfaction. The majority of job satisfaction research has utilized the one factor model in which satisfaction and dissatisfaction with a job factor is perceived as existing on a single continuum ranging from completely satisfied, to completely dissatisfied. The two factor model was developed by Herzberg and proposed that the job factors which contribute to job satisfaction are, independent of the job factors which contribute to job dissatisfaction. There has been much discussion supporting, and rejecting both the one and two factor models, with the conclusion that the one factor model is more adaptable and more appropriate to the various methodologies used in job satisfaction research.

A review of the job satisfaction literature has revealed that two fundamental methodologies have been utilized to identify the job factors contributing to feelings of satisfaction or dissatisfaction with the job. The 'amount' model was described by Wawruk (1971), and was conceived as a relationship between the amount of a job factor perceived

in the job and a resulting feeling of satisfaction. The model failed, however, to establish a causal relationship between the perception of the factor and the satisfaction response. The discrepancy model proposed by Locke (1969) was considered to be an improvement on the aforementioned model since it attempted to clearly establish a causal relationship between the cognitive process involved in perception and appraisal, and the resultant feelings of satisfaction.

Numerous research investigations have identified common job factors which have contributed to job satisfaction or dissatisfaction, and have demonstrated that specific biographic and demographic variables have affected the varying reported levels of job satisfaction and dissatisfaction.

Specific studies pertaining to the physical education profession revealed that job satisfaction of physical educators was also affected by selected biographic and demographic variables.

Chapter 3

INSTRUMENT AND METHODOLOGY

The data for this study was collected by means of a self administered questionnaire consisting of four sections and called "The Job Situation Questionnaire" (Appendix A).

THE RESEARCH INSTRUMENT

The theoretical discrepancy model proposed by Locke (1969:309-336) was used to develop the questionnaire. In order to satisfy the measurement criteria of Locke's discrepancy model, sections one and two of the questionnaire were designed to collect the discrepancy and satisfaction responses respectively.

Section three of the questionnaire was developed to collect importance responses on the selected job factors present in the physical education teachers' job situations. Locke's discrepancy model does not require that importance ratings be used for calculating job satisfaction, since the effect of the importance an individual attaches to a job factor is assumed to be already present in the satisfaction or dissatisfaction response.

However, the collection of importance ratings in this study was designed to determine those factors present in the physical education job situation which were considered, by the physical educators, to be of greater or lesser importance. From an administrative point of view, it was deemed of interest to determine those aspects of a physical education teacher's job that were considered to be of major concern to the teachers.

Section four of the "Job Situation Questionnaire" was designed to collect the biographic and demographic data about the physical education teachers. These data were used to group the teachers for the purpose of comparison.

The four sections of the Job Situation Questionnaire were comprised of:

Section 1. 'The Discrepancy Questionnaire' - Physical education teachers were asked to respond to thirty-five factors pertaining to their job. More specifically, teachers were asked to indicate, on a five point scale, the discrepancy between what they preferred, and what they saw as actually existing regarding specific job factors.

Section 2. 'The Satisfaction Questionnaire' - Physical education teachers were asked to indicate their level of satisfaction or dissatisfaction on each of the thirty-five job factors.

Section 3. 'The Importance Questionnaire' - Physical education teachers were asked to indicate how important each of the thirty-five job factors were in determining the satisfaction or dissatisfaction they had with their job.

Section 4. 'The Biographic and Demographic Data Questionnaire' - Physical education teachers were asked to provide information of a personal and professional nature. This included personal information pertaining to age, level of professional training, coaching duties, teaching experience, position in the physical education department, and the level at which they taught physical education. The instrument also included data of a demographic nature, such as type of school in which the teacher worked, and enrollment of the school.

Response Scales

The response scales used in sections one, two, and three of the instrument were of the Likert type.

Crano and Brewer stated that, "in most common instances, scales are used to assign respondents to some specific point on a hypothetical dimension" (1973:224). The hypothetical dimensions used in the Job Situation Questionnaire are:

Section 1 - No discrepancy to extreme discrepancy on a five point scale.

Section 2 - Completely dissatisfied to completely satisfied on a five point scale.

Section 3 - Not at all important to very important on a four point scale.

The three ordinal scales used in this study indicated the response of each individual on this hypothetical dimension. Although numbers were used on the scales, they did not signify specific measurable differences between each unit of the scale. Babbie (1973:38) emphasized that the numbers used in ordinal scales similar to the scale used in this study only indicate a rank ordering response on each item. Therefore, one cannot determine the difference in measurable units for satisfaction between two units within a scale.

Section four consisted of questions relating to biographic and demographic information about the respondents.

Job Factors

The individual job factors used in the questionnaire were selected on the basis of a review of previous job satisfaction studies, through an intuitive analysis of the job environment of physical

education teachers, and from the suggestions received from the pilot group during the validation process of the questionnaire.

Thirty-five job factors were identified to gain responses concerning the job situation of physical education teachers. These individual job factors were grouped as follows:

1. The Physical Education Instructional Program. - This category included factors one to nine on the questionnaire, and was specifically related to the 'in-class' teaching timetable of the school.

2. The Physical Education Extracurricular Program. - This category included factors ten to seventeen on the questionnaire and was concerned with job factors specifically related to the activities which were organized by the physical education department, but did not fall into the category of the formal instructional program.

The remaining eighteen factors, although closely associated to the physical education teacher's job situation, did not deal specifically with the instructional or extracurricular programs. These remaining factors were considered to fall into the categories developed by the researchers previously mentioned in the review of literature. These categories were termed job content (motivational) factors, or job context (hygiene) factors by Herzberg (1959), and intrinsic factors, and extrinsic factors by Friedlander (1964) and others. Sergiovanni and Carver (1974:89-98), in their discussion of job satisfaction, proposed a relationship between the Herzberg theory, and Maslow's hierarchy of needs theory. It would appear that the job content factors mentioned by Herzberg (1959), and the intrinsic factors proposed by Friedlander (1964), would be instrumental in fulfilling the self-actualizing (psychological) needs of Maslow's hierarchy. The job context or

extrinsic factors, on the other hand, would satisfy Maslow's lower order needs.

For the purpose of this study, it was decided to group the remaining eighteen factors as follows:

3. The Psychological Need Category. - This category included the job factors numbered 19, 21, 22, 23, 25, 27, 28, 32, 33, 34, and 35, and was concerned with the psychological needs and concerns of the physical education teachers.

4. The General Environmental Category. - This category included the job factors numbered 18, 20, 24, 25, 29, 30, and 31, and was concerned with the environmental influences present in the job situation of the physical education teachers. These job factors included characteristics of the factors termed as hygiene by Herzberg, and extrinsic by Friedlander.

SAMPLE

The sample for this study was chosen from the elementary, junior, and senior high schools of the Edmonton Public and Separate School Boards.

According to Babbie (1973:94), sampling error can be reduced by the selection of a large sample from a given population, and by the use of a homogeneous population. He suggested that the use of a stratified sampling technique ensures a more representative sample of the population. The process of identifying the stratified sample involves the drawing of appropriate numbers of elements from the different subsets of the population.

The precise sampling method used in this study involved the grouping of all the physical educators in the elementary, junior, and senior high schools of Edmonton, into discrete groups based on:

1. The school system in which the teacher worked.
2. The sex of the teacher.

The proportion of each subgroup within the sample was shown to represent a similar proportion within the population. To ensure equal representation, the sample consisted of randomly chosen elements from each subgroup, with the number selected from each group being determined by the proportional relationship of the group to the population.

The sample consisted of a total of one hundred and fifty physical education teachers, and represented sixty percent of the total population.

RELIABILITY AND VALIDITY

Reliability

Common methods of ensuring the reliability of an instrument includes test-retest, or split half correlation co-efficient processes. Oppenheim (1966:69) defined reliability as the consistency of an instrument in obtaining the same result again. The problem with attitude questionnaires is that a respondent's attitude may change from time to time; therefore, the test-retest method of confirming reliability is inadequate. A different response on the same scale does not necessarily indicate an unreliable instrument, rather it may suggest a change in attitude on the same item.

Kerlinger has suggested two methods by which the reliability of a questionnaire can be improved. He suggested that the items used

should be unambiguous, and the instructions for the questionnaire must be clearly stated (1967:442-443). Every attempt was made to meet these conditions for the "Job Situation Questionnaire" used in this study. An original draft of the instrument was administered to twelve graduate students in the Faculty of Physical Education and Recreation at the University of Alberta. An attempt was made to select individuals who had had experience in the teaching profession, since it was felt that they would be more objective in their analysis of the items used in the instrument. This group was asked to complete the questionnaire in order to ascertain the time required for administration. The group was then requested to indicate any ambiguities, unsatisfactory items, or further items that might be included in the questionnaire. The instrument was revised on the basis of these recommendations. The revised questionnaire was subsequently presented to six professors in the Departments of Physical Education, Educational Services, and Educational Administration at the University of Alberta. Further suggestions were received from these professors concerning improvements and clarity of the instrument, and further revisions were made to the questionnaire before the final draft was produced.

Validity

Kerlinger (1967:444-449) suggested that content validation measures should be required for evaluating instruments. According to Zedeck and Blood in their writings on job satisfaction (1974:182), "Content validity is the degree to which an instrument includes a representative sample of all relevant job aspects." Content validation is a matter of judgement by individuals knowledgeable in the study area (Kerlinger, 1967:446; Varma, 1965:98; Day, 1971:46). Furthermore,

Van Dalen (1962:264), and Levitt (1961:47) have suggested that logical validity and face validity are also regarded as acceptable in the composition of instruments, as long as it is carried out by experts, or knowledgeable individuals in the area of the investigation.

It was felt that the "Job Situation Questionnaire" satisfied the criteria for content, face, and logical validity, since the construction of the instrument was accomplished only after an extensive review of the job factors presented in the job satisfaction research, and after the test items were evaluated by physical education experts. The proposed job factors for this study were revised following the suggestions of many multi-level experts in the field of physical education.

COLLECTION AND TREATMENT OF DATA

Collection of Data

The questionnaire, accompanied by a letter of explanation, was mailed to the teachers in the sample on January 27, 1976. The respondents, upon completion of the questionnaire, were asked to return it in a prepaid, self addressed envelope.

A further letter was sent on February 10, 1976 to those respondents who had not returned the questionnaire (Appendix B). In an attempt to receive as high a response ratio as possible, telephone contact was attempted during the final week of February, with those respondents who had still neglected to return the questionnaire.

A deadline date of March 6, 1976 was established for receiving the completed questionnaire.

Treatment of Data

Upon receipt of the completed questionnaires, the data was

transferred to IBM computer cards, with two cards being used for each subject. The analysis of the data was achieved by the utilization of various programs described in the Statistical Package for the Social Sciences (S. P. S. S.) (1975).

Parametric and non-parametric methods of analysis were utilized in the treatment of the data, and both descriptive and inferential statistical analysis was used.

There has been some disagreement regarding the use of parametric statistics with the level of measurement of some social science research.

Siegal (1956), and Senders (1958) have argued that unless data are of an interval nature, parametric techniques should not be used. Their argument was that only certain types of mathematical operations were permissible with data of a given measurement strength. Ordinal data should not be subjected to the mathematical operations which are used for parametric procedures, since these procedures require a standard unit of measurement between points on the scale. It is felt that since ordinal data is at best, a rank ordering unit of measurement, it cannot be subjected to parametric analysis.

Popham and Sirotnik (1973), however, disagree with this position. They proposed that parametric analysis can be used for ordinal data, and in fact, it can be used whenever data is represented in numerical form. The errors, they feel, arise in the interpretation of the data, and the meaning attached to the results. Therefore, Popham and Sirotnik (1973:269-270) proposed the use of parametric tests for all numerical (ordinal, interval, and ratio scale) data. Since the present study had data of the ordinal type, and since the author agrees with the position taken by Popham and Sirotnik, the use of parametric analysis for this study was felt to be justified.

Chapter 4

ANALYSIS OF DATA

This chapter deals with a reporting and analysis of the data. General observations about the sample return rate will precede an examination of the data gained from the discrepancy, satisfaction, and importance questionnaires.

THE SAMPLE

The stratified sampling technique used in this study randomly identified a sample from two subgroups within the population. The subgroups used were the school system in which the physical education teacher worked, and the sex of the physical education teacher. The size of the sample for each of these subgroups was in proportion to the size of the subgroups within the total population. The sample consisted of one hundred and fifty teachers, of which thirty men and twenty women were chosen from the Edmonton Separate Catholic School System; and fifty-six men and forty-four women were selected from the Edmonton Public School System (Table 1).

Table 1

The Sample

School System	Males	Females	Total
Separate Schools	30	20	50
Public Schools	56	44	100
TOTALS	86	64	150

Ninety of the one hundred and fifty questionnaires distributed were returned; a response rate of sixty percent. Many of the respondents in the study tore the identification number from the questionnaires, making it impossible to identify the percentage return from each school system. Table 2 represents the actual and percentage return by sex.

Table 2

Sample Return Rate By Sex

Sex	Actual Return	Percentage of Sample
Male	47	54%
Female	43	66%
TOTALS	90	60%

Oppenheim (1966:34) suggested that a sixty percent return rate was reasonable, while Babbie (1973:165) considered fifty percent as 'adequate', and sixty percent as a 'good' return. On the basis of these recommendations, the overall return rate of sixty percent for this study was considered acceptable.

Appendix C shows the response rate for each group developed within each demographic and biographic variable, and the return rate for each group is represented as a percentage of the total responses to each variable. When the response rate was extremely small, or no responses were received for a particular group, these groups were combined or deleted for the purpose of the analysis. For example, for the age variables, no responses were received for the age group fifty-three to sixty and above sixty years; as a result, these groups were deleted.

The number of responses were small for the thirty-seven to forty-four and the forty-five to fifty-two age groups, so these were combined into an over thirty-seven group.

DISCREPANCY DATA

Individual Job Factor Data

The S. P. S. S. Program Frequencies was used to identify the frequency responses of physical education teachers for each of the thirty-five job factors. Table 3 presents the frequencies at each response level on the discrepancy scale for each job factor. The frequencies were also represented as a percentage of the total responses for each job factor. The mean score and standard deviation for each of the thirty-five job factors was also presented. The highest mean score for any of the individual job factors was 3.67, which indicated that a moderate to large discrepancy existed on the factor concerned with 'the relief time received for involvement in the extracurricular program'. Only two other factors had a mean score in excess of the moderate discrepancy response levels. These factors were 'the salary earned by the teacher' (3.033), and 'the budget allocation for the extracurricular program' (3.011).

Although none of the mean scores for the above factors fall within the large or extreme discrepancy response level, the mode of the responses for the first three previously mentioned factors existed at the large of extreme discrepancy levels. The overall mean score for all thirty-five job factors was 2.35, indicating an overall discrepancy response falling between some discrepancy, and moderate discrepancy. The lowest mean score for any of the individual job factors was 1.311,

which indicated a response between no discrepancy, and some discrepancy, for the factor 'autonomy to make decisions regarding methods of teaching'. Seventy-five percent of the respondents indicated that there was no discrepancy between what they perceived existed and what they preferred to exist on this factor. The factor concerned with 'security of your job' had a mean score of 1.4, with sixty-four percent of the responses being no discrepancy. The factors 'personal relations with other teachers', and 'personal relations with the students' had a mean score of 1.5, and 1.61 respectively; sixty-three percent of the responses on the former factor, and fifty-two percent of the responses on the latter indicated no discrepancy.

For those factors indicating a lower mean score on the discrepancy scale, there appeared to be far less dispersion of the scores around the mean. One standard deviation for the lowest mean scores involving 'autonomy over teaching methods' (0.6), and 'security of the job' (0.7), indicated a closer overall score distribution on these factors than did the standard deviation of 1.4 and 1.5 for the highest mean scores concerned with 'relief time' and 'involvement of non-physical education teachers in the extracurricular program'. There appeared to be a trend toward greater distribution of responses as the mean scores on the discrepancy scale increased. This would indicate that the teachers were in closer agreement with those factors showing a lower discrepancy than they were on those factors which indicated a moderate to large discrepancy response.

For the purpose of testing the various hypotheses, the individual factors were categorized into areas concerning the instructional program, the extracurricular program, the psychological need factors, and the general environmental factors.

Table 3

RANKED FREQUENCY DISTRIBUTION, MEANS AND STANDARD DEVIATIONS FOR DISCREPANCY RESPONSES

Job Factor	No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5	No Response	Means	S.D.
Special relief time you receive for your involvement in the physical education extracurricular program	11 (12)	19 (21)	16 (18)	14 (16)	30 (33)		3.367	1.4
The involvement of non-physical education teachers in the physical education extracurricular program	18 (20)	17 (19)	15 (17)	19 (21)	21 (23)		3.089	1.5
The salary you receive when you consider your experience and professional training	12 (13)	21 (23)	19 (21)	23 (26)	14 (16)	1 (1)	3.033	1.3
The budget allocation for extracurricular activities	13 (14)	19 (21)	24 (27)	22 (24)	12 (13)		3.011	1.3
The existing budget allotment for your physical education instructional program	8 (9)	27 (30)	24 (27)	17 (19)	13 (14)	1 (1)	2.967	1.2

Table 3 (Continued)

Job Factor	No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5	No Response	Means	S.D.
The amount of preparation time you are allotted	15 (17)	25 (28)	15 (17)	19 (21)	16 (18)		2.956	1.4
Community input into the overall physical education program	17 (19)	22 (24)	15 (17)	24 (27)	12 (13)		2.911	1.4
The personal recognition you receive from the community for the work you do	13 (14)	21 (23)	24 (27)	20 (22)	11 (12)	1 (1)	2.911	1.3
The number of students actively participating in the physical education extracurricular program	10 (11)	28 (31)	28 (31)	19 (21)	5 (6)		2.789	1.1
The average size for your physical education classes	15 (17)	25 (28)	22 (24)	24 (27)	4 (4)		2.744	1.2
The opportunity you have for promotion and advancement in your job as a physical education teacher	19 (21)	20 (22)	24 (27)	21 (23)	6 (7)		2.722	1.2
The competency of professional physical education organizations in satisfying the needs of physical education teachers at the junior and senior high school level	12 (13)	36 (40)	16 (18)	24 (27)	2 (2)		2.644	1.1

Table 3 (Continued)

Job Factor	No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5	No Response	Means	S.D.
The facilities and equipment available for your physical education classes	12 (13)	32 (36)	28 (31)	14 (16)	4 (4)		2.622	1.1
The availability of opportunities for professional growth and development through your job	18 (20)	32 (36)	20 (22)	16 (18)	4 (4)		2.511	1.1
The time you are required to spend on physical education extracurricular activities	24 (27)	25 (28)	21 (23)	11 (12)	9 (10)		2.511	1.3
The facilities and equipment available for physical education extracurricular activities	16 (18)	33 (37)	27 (30)	11 (12)	3 (3)		2.467	1.0
The status accorded those teaching physical education by the teaching profession	16 (18)	32 (36)	33 (37)	5 (6)	4 (4)		2.433	.99
Your assigned overall teaching load	31 (34)	19 (21)	16 (18)	19 (21)	5 (6)		2.422	1.3
The status accorded those teaching physical education by the community	18 (1)	34 (20)	28 (38)	6 (31)	3 (7)	1 (3)	2.322	1.0

Table 3 (Continued)

Job Factor	No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5	No Response	Means	S.D.
The personal recognition you receive from fellow teachers for the work you do	23 (26)	32 (36)	20 (22)	14 (16)	1 (1)		2.311	1.1
The teaching profession as a satisfier of personal career needs	20 (22)	39 (43)	19 (21)	7 (8)	5 (6)		2.311	1.1
The opportunities for personal growth and development through your job as a physical education teacher	21 (23)	37 (41)	19 (21)	9 (10)	4 (5)		2.311	1.1
The personal recognition you receive from fellow teachers for the work you do	26 (29)	36 (40)	19 (21)	6 (7)	3 (3)		2.156	1.0
The personal recognition you receive from your immediate superior for the work you do	37 (41)	27 (30)	8 (9)	13 (14)	5 (6)		2.133	1.3
The involvement of fellow physical education teachers in the physical education extracurricular program	36 (40)	28 (31)	12 (14)	10 (11)	3 (3)	1 (1)	2.033	1.2

Table 3 (Continued)

Job Factors	No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5	No Response	Means	S.D.
The variety of activities in the physical education extracurricular program	37 (41)	26 (29)	18 (20)	7 (8)	2 (2)		2.011	1.1
The assistance and co-operation you receive from your immediate superior	52 (58)	15 (17)	6 (7)	11 (12)	6 (7)		1.933	1.3
The present curriculum content in your physical education program	26 (29)	49 (54)	12 (14)	3 (3)	0		1.911	.74
The disciplinary power you have in order to control the behaviour of your students	46 (51)	30 (34)	10 (11)	4 (4)	0		1.689	.84
The autonomy you have to make your own decisions regarding the content of your instructional program	44 (49)	36 (40)	7 (8)	2 (2)	1 (1)		1.667	.81
The type of teaching assignments you have been given in physical education	48 (53)	31 (35)	7 (8)	3 (3)	1 (1)		1.644	.85
The relationship you have with the students you teach	47 (52)	34 (38)	6 (7)	3 (3)	0		1.611	.76

Table 3 (Continued)

Job Factor	No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5	No Response	Means	S.D.
Your personal relationship with fellow teachers	57 (63)	26 (29)	3 (3)	3 (3)	1 (1)		1.500	.65
The security of your job	58 (64)	26 (29)	4 (4)	1 (1)	0		1.400	.65
The autonomy you have to make your own decisions regarding the method by which you teach	67 (75)	20 (22)	2 (2)	0	1 (1)		1.311	.63
					OVERALL MEAN DISCREPANCY SCORE		2.350	

( ) - indicates percentage frequency responses

A rank ordering of the mean scores for each of the job factor categories is presented in Table 4. The table shows that physical education teachers perceived the greatest discrepancy occurring in the extracurricular program, with the environmental category, instructional program, and psychological need category ranking second, third, and fourth, respectively. It was interesting to note that the interval separating the first and second category was much larger than any of the intervals separating the other three categories.

Table 4

Rank Order of Mean Discrepancy Scores for Grouped Factors

Job Category	Mean	Rank
Extracurricular Program	2.660	1
Environmental Factors	2.397	2
Instructional Program	2.285	3
Psychological Needs	2.159	4

H.1

Hypothesis One stated that there will be no significant difference in the reported discrepancy of what physical education teachers prefer, and what they perceive as existing between the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category present in their job situation.

The S. P. S. S. One Way Analysis of Variance program was used to test this hypothesis. An F score of 24.198 indicated that a difference between categories existed at the .001 level (Appendix D).

A further analysis was required to determine which specific category comparisons resulted in significant differences. The Duncan Multiple Range Analysis was utilized for this purpose, and differences at the .05 level of significance were identified. Table 5 shows the between category mean comparisons, the actual differences between category means, whether significance existed at the .05 level, and the effect of the category comparison upon the stated hypothesis.

Table 5

The Duncan Multiple Range Analysis of Discrepancy Means for Grouped Factors

Comparison of Job Categories	Mean	Actual Difference	Significant at .05 Level	Accept H.1
Psychological Needs Environmental Category	2.159 2.397	.238	Yes	No
Psychological Needs Instructional Program	2.159 2.285	.126	Yes	No
Psychological Needs Extracurricular Program	2.159 2.660	.501	Yes	No
Instructional Program Extracurricular Program	2.285 2.660	.375	Yes	No
Environmental Category Extracurricular Program	2.397 2.660	.263	Yes	No
Instructional Program Environmental Category	2.285 2.397	.112	No	Yes

The comparison between the instructional program and the environmental category was not significantly different at the .05 level, and was the only comparison that supported the hypothesis. All other comparisons showed that a significant difference did occur in the reported discrepancy between what was preferred and what was seen to exist for the physical education instructional program, the extracurricular pro-

gram, the psychological need category, and the general environmental category for physical education teachers.

On the basis of the results, the null hypothesis was rejected for five of the six category comparisons, with the comparison between the instructional program and environmental category supporting the hypothesis.

H.2

Hypothesis Two stated there will be no significant difference in the reported discrepancy between what teachers prefer and what they perceive as existing in the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category, when physical education teachers are grouped on the basis of the following demographic and biographic variables: Type of school, enrollment of school, age, sex, professional training, years of teaching in their present school, size of the physical education department, level at which physical education teachers teach physical education classes, coaching duties, and teaching load for physical education classes.

The hypothesis was tested by using the S. P. S. S. One Way Analysis of Variance, which also included the Duncan Multiple Range Test to indicate mean differences between all group comparisons within each demographic and biographic variable. Those differences shown by the Duncan Multiple Range Test to be significant at the .05 level are discussed further.

When the physical education teachers were grouped on the basis of the demographic and biographic variables, significant mean score differences occurred between certain groups on the job categories

concerned with the instructional program, and the extracurricular program.

For the variable considering the type of school, Table 6 shows that those teachers in the junior high schools differed significantly from those teachers in either the combined junior and senior high, or the senior high schools on the discrepancy perceived for the instructional program. Those teachers in the junior high school perceived more discrepancy in the instructional program than did those teachers involved in the combined junior and senior high, or in the high schools. The junior high school teachers did not differ significantly from those teachers in the combined elementary and junior high schools.

Table 6

Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Type of School for the Category Concefned with the Instructional Program

Means and Comparisons Rejecting the Hypothesis	Means & Significantly Different Comparisons			
	Junior High	Combined Elem. & Jr. Hi.	Combined Jr. & Sr. Hi	Senior High
Junior High	2.512	-	Reject	Reject
Combined Elem. & Jr. High	-	2.474	-	-
Combined Elem. & Sr. High	.05	-	2.028	-
Senior High	.05	-	-	1.881

When the teachers were grouped on the basis of the enrollment of their schools, differences in discrepancy were found to exist on the instructional program. The greatest mean discrepancy score (2.470) was

indicated by the teachers in schools with an enrollment between 350 and 750 students. This group did not differ significantly from those teachers whose school enrollment was under 350, or between 750 and 1,000 students. This group did differ, however, from those teachers in schools with 1,000 to 1,350 students and also indicated a greater discrepancy score on the instructional program than those schools with 1,500 or more students. Although no linear trend is shown whereby discrepancy decreases, or increases with enrollment, Table 7 shows that generally the smaller schools reported more discrepancy than the larger schools when considering the instructional program.

Table 7

Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Enrollment for the Category Concerned with the Instructional Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons				
		350 - 750	750 - 1,000	Under 300	1,500 +	1,000 - 1,500
	350 - 750	2.470	-	-	Reject	Reject
	750 -1,000	-	2.350	-	-	Reject
	Under 350	-	-	2.311	-	-
	1,500 +	.05	-	-	1.929	-
	1,000-1,500	.05	.05	-	-	1.815

Discrepancy scores for the instructional program also indicated a significant difference when the teachers were grouped on the basis of the size of the physical education department. Those teachers who were staff teachers in departments of between one and three teachers showed

higher mean discrepancy scores than did those teachers who were staff teachers in departments of more than six teachers (Table 8).

Table 8

Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Size of Department for the Category Concerned with the Instructional Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons		
		1 - 3 Teachers	4 or 5 Teachers	6 plus Teachers
	1 - 3 Teachers	2.416	-	Reject
	4 or 5 Teachers	-	2.327	-
	6 plus Teachers	.05	-	1.992

Finally, grade levels taught seemingly affected the perceived discrepancy of physical education teachers. Table 9 indicates that teachers teaching grades seven to nine differed significantly and reported a greater discrepancy with the instructional program than did those teaching grades ten to twelve.

Table 9

Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Grades for the Category Concerned with the Instructional Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons	
		Grades 7 to 9	Grades 10 to 12
	7 to 9	2.469	Reject
	10 to 12	.05	1.853

For the job category pertaining to the extracurricular program, significant differences occurred when the teachers were grouped on the basis of their ages and the types of school in which they taught.

Teachers between the ages of twenty-one and twenty-eight indicated the largest mean discrepancy score (2.875), and differed significantly from those teachers who were twenty-nine to thirty-six years of age. The age group consisting of teachers that were thirty-seven years or older did not differ significantly from either of the other groups (Table 10).

Table 10

Mean Discrepancy Scores, Significant Differences and Hypothesis Rejection by Age for the Category Concerned with the Extracurricular Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparions		
		21 to 28 Years	37 plus Years	29 to 36 Years
	21 to 28 Years	2.875	-	Reject
	37 plus Years	-	2.531	-
	29 to 36 Years	.05	-	2.386

With respect to the variable indicating the type of school, teachers in the combined elementary and junior high schools indicated the greatest mean discrepancy score (2.942); but they only differed significantly from those teachers in the senior high levels and the combined junior and senior high schools (Table 11).

Table 11

Mean Discrepancy Scores, Significant Differences And Hypothesis Rejection by Type of School for the Category Concerned with the Extracurricular Program

Means and Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons			
		Combined Elem. & Jr. Hi.	Junior High	Senior High	Combined Jr. & Sr. Hi.
	Combined Elem. & Jr. High	2.942	-	Reject	Reject
	Junior High	-	2.714	-	-
	Senior High	.05	-	2.394	-
	Combined Jr. & Sr. High	.05	-	-	1.096

On the basis of the results, a total rejection of the hypothesis was not possible, however, some comparisons based on the grouping of the teachers by the demographic and biographic variables did reject Hypothesis Two.

SATISFACTION DATA

Individual Job Factor Data

Using the S. P. S. S. Program Frequencies, frequency responses of the physical education teachers were identified for each of the thirty-five job factors in the Job Satisfaction Questionnaire. Table 12 presents the frequencies at each response level on the satisfaction scale for each job factor. The frequencies were also represented as a percentage of the total responses for each factor. The mean score, and standard deviation for each of the job factors also is presented in the table.

The overall mean satisfaction score of 3.31 for the thirty-five job factors indicated a response between the neutral score of neither satisfied nor dissatisfied, and the response of slightly satisfied.

The teachers were most satisfied with 'the autonomy to make decisions regarding teaching methods'. The mean score of 4.444 signified a score between slightly satisfied and completely satisfied, and the mode of fifty-five percent of the respondents indicated a completely satisfied response.

'Personal relations with other teachers' produced a mean score of 4.356 and fifty-four percent of the respondents were completely satisfied. Job factors dealing with 'autonomy for curriculum content', 'personal relations with students', and 'security and disciplinary power over students' also indicated a mean score between slightly satisfied and completely satisfied, with the mode in each case existing at the completely satisfied level.

The lowest mean satisfaction score was 2.489 and was concerned with 'the relief time received for involvement in the extracurricular program'. The score indicated a feeling between slightly dissatisfied and neither satified nor dissatisfied. On this factor, twenty-nine percent of the respondents were completely dissatisfied.

The budget allocated for the instructional program and the size of the physical education classes also indicated a slightly dissatisfied score, but none of the job factors had as their mode, the completely dissatisfied level on the satisfaction scales.

The physical education teachers did not indicate a completely satisfied, or a completely dissatisfied mean score, on any of the thirty-five job factors. Table 12 indicates that the teachers did not

Table 12

RANKED FREQUENCY DISTRIBUTION, MEANS AND STANDARD DEVIATIONS FOR SATISFACTION RESPONSES

Job Factor	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5	No Response	Means	S.D.
The autonomy you have to make your own decisions regarding the method by which you teach	0 (0)	2 (2)	6 (7)	32 (36)	50 (55)		4.444	.72
Your personal relationship with fellow teachers	0 (0)	5 (6)	7 (8)	29 (32)	49 (54)		4.356	.85
The autonomy you have to make your own decisions regarding the content of your instructional program	0 (0)	2 (2)	11 (12)	36 (40)	41 (46)		4.289	.77
The relationship you have with the students you teach	1 (1)	6 (7)	6 (7)	34 (38)	43 (48)		4.244	.92
The security of your job	0 (0)	6 (7)	14 (16)	22 (24)	47 (52)	1 (1)	4.189	1.05
The disciplinary power you have in order to control the behaviour of your students	3 (3)	9 (10)	9 (10)	29 (32)	40 (45)		4.044	1.1
The type of teaching assignments you have been given in physical education	2 (2)	10 (11)	15 (17)	25 (28)	37 (41)	1 (1)	3.911	1.2

Table 12 (Continued)

Job Factor	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5	No Response	Means	S.D.
The present curriculum content in your physical education program	1 (1)	13 (14)	13 (14)	46 (51)	17 (19)		3.722	.97
The assistance and co-operation you receive from your immediate superior	6 (7)	20 (22)	4 (4)	23 (26)	37 (41)		3.722	1.4
The involvement of fellow physical education teachers in the physical education extracurricular program	5 (6)	14 (16)	14 (16)	22 (24)	34 (38)	1 (1)	3.678	1.2
The personal recognition you receive from your immediate superior for the work you do	5 (6)	13 (14)	14 (16)	32 (36)	26 (29)		3.678	1.2
The variety of activities in the physical education extracurricular program	3 (3)	14 (16)	26 (29)	23 (26)	24 (27)		3.567	1.1
The teaching profession as a satisfier of personal career needs	6 (7)	18 (20)	10 (11)	32 (30)	22 (24)	2 (2)	3.444	1.4
The personal recognition you receive from students for the work you do	3 (3)	20 (22)	16 (18)	37 (41)	14 (16)		3.433	1.1

Table 12 (Continued)

Job Factor	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5	No Response	Means	S.D.
The opportunities for personal growth and development through your job as a physical education teacher	5 (6)	20 (22)	18 (20)	29 (32)	18 (20)		3.389	1.2
Your assigned overall teaching load	8 (9)	26 (29)	10 (11)	21 (23)	25 (28)		3.322	1.4
The personal recognition you receive from fellow teachers for the work you do	2 (2)	24 (27)	28 (31)	19 (21)	17 (19)		3.278	1.1
The availability of opportunities for professional growth and development through your job	3 (3)	25 (28)	24 (27)	27 (30)	11 (12)		3.200	1.1
The time you are required to spend on physical education extracurricular activities	8 (9)	20 (22)	27 (30)	15 (17)	19 (21)	1 (1)	3.156	1.3
The status accorded those teaching physical education by the community	4 (4)	24 (27)	34 (38)	20 (22)	8 (9)		3.044	1.0

Table 12 (Continued)

Job Factor	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5	No Response	Means	S.D.
The facilities and equipment available for your physical education classes	9 (10)	33 (37)	7 (8)	29 (32)	12 (13)		3.022	1.3
The status accorded those teaching physical education by the teaching profession	3 (3)	31 (34)	30 (33)	16 (18)	10 (11)		2.989	1.0
The facilities and equipment for physical education extracurricular activities	8 (9)	31 (34)	16 (18)	25 (28)	10 (11)		2.978	1.2
The number of students actively participating in the physical education extracurricular program	11 (12)	36 (40)	7 (8)	21 (23)	15 (17)		2.922	1.3
The competency of professional physical education organizations in satisfying the needs of physical education teachers at the junior and senior high school level	6 (7)	30 (33)	27 (30)	20 (22)	7 (8)		2.911	1.1
The opportunity you have for promotion and advancement in your job as a physical education teacher	11 (12)	24 (27)	31 (34)	11 (12)	13 (15)		2.900	1.2

Table 12 (Continued)

Job Factor	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5	No Response	Means	S.D.
The salary you receive when you consider your experience and professional training	16 (18)	29 (32)	11 (12)	21 (23)	13 (15)		2.844	1.4
The average size for your physical education classes	13 (14)	38 (42)	5 (6)	19 (21)	15 (17)		2.833	1.4
The involvement of non-physical education teachers in the physical education extracurricular program	19 (26)	31 (34)	11 (12)	14 (16)	15 (17)		2.722	1.4
The personal recognition you receive from the community for the work you do	13 (14)	23 (26)	40 (45)	11 (12)	3 (3)		2.644	.99
The amount of preparation time you are allotted	18 (20)	34 (38)	13 (14)	13 (14)	12 (13)		2.633	1.3
The budget allocation for extracurricular activities	17 (19)	34 (38)	16 (18)	12 (13)	11 (12)		2.622	1.3
Community input into the overall physical education program	11 (18)	31 (34)	35 (39)	7 (8)	6 (7)		2.622	1.0

Table 12 (Continued)

Job Factor	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5	No Response	Means	S.D.
The existing budget allotment for your physical education instructional program	16 (18)	33 (37)	17 (19)	13 (14)	10 (11)	1 (1)	2.611	1.3
Special relief time you receive for your involvement in the physical education extracurricular program	26 (29)	29 (32)	10 (11)	15 (17)	10 (11)		2.489	1.4
				OVERALL MEAN SATISFACTION SCORE			3.310	

( ) - indicates percentage frequency responses

produce a mean score which indicated satisfaction with any of the job factors associated with the extracurricular program.

The job factors were grouped into the four job categories, and then ranked using the mean satisfaction scores (Table 13). The highest mean satisfaction score (3.535) was recorded for the psychological need category; the instructional program, and environmental factors followed second and third, and the extracurricular program was ranked as the least satisfying category.

Table 13

Rank Order of Mean Satisfaction Scores for Grouped Factors

Job Category	Mean	Rank
Psychological Needs	3.535	1
Instructional Program	3.372	2
Environmental Category	3.213	3
Extracurricular Program	3.019	4

H.3

Hypothesis Three stated that there will be no significant difference in the reported level of satisfaction or dissatisfaction of physical education teachers between the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category present in their job situation.

Appendix D shows the results of the S. P. S. S. One Way Anova with Repeated Measures Program used to test this hypothesis. The F score of 4.2068 indicated that group differences did occur at the .001 level of significance.

The differences that were significant at the .05 level were computed by using the Duncan Multiple Range Analysis of Means procedure. For this analysis, all of the comparisons of the job categories show a significant difference in the mean scores at the .05 level and are tabulated in Table 14.

Table 14

The Duncan Multiple Range Analysis of Satisfaction Means for Grouped Factors

Comparison of Job Categories	Means	Actual Difference	Significance at .05 Level	Accept H.3
Psychological Needs Instructional Program	3.535 3.372	.163	Yes	No
Psychological Needs Environmental Category	3.535 3.213	.322	Yes	No
Psychological Needs Extracurricular Program	3.535 3.019	.516	Yes	No
Instructional Program Environmental Category	3.372 3.213	.159	Yes	No
Instructional Program Extracurricular Program	3.372 3.019	.353	Yes	No
Environmental Category Extracurricular Program	3.213 3.019	.194	Yes	No

The results of this analysis necessitated a rejection of the hypothesis since there was a significant difference between the job categories concerned with the instructional program, the extracurricular program, the psychological needs, and the general environmental factors.

H.4

Hypothesis Four stated that there will be no significant difference in the reported level of satisfaction or dissatisfaction for the physical education instructional program, the extracurricular program,

the psychological category, and the general environmental category between physical education teachers grouped on the basis of the following demographic and biographic variables: type of school, enrollment of school, age, sex, professional training, years of teaching in the present school, size of the physical education department, level at which physical education teachers teach physical education classes, coaching duties, teaching load for physical education classes.

This hypothesis was tested by using the S. P. S. S. One Way Analysis of Variance and the Duncan Multiple Range Test to indicate the differences in the mean scores for all comparisons for each demographic and biographic variable. Those differences shown by the Duncan Multiple Range Test to be significant at the .05 level are discussed further.

Significant differences appeared between the mean satisfaction scores for the job category concerned with the instructional program, when the physical education teachers were grouped on the basis of the biographic and demographic variables.

Table 15 indicates that the highest level of satisfaction for the instructional program was reported by teachers in the senior high schools, but these teachers only differed significantly from the teachers in the combined elementary and junior high, and the teachers junior high schools.

Teachers in schools with an enrollment of one thousand to fifteen hundred students indicated a significantly higher level of satisfaction with the instructional program than did teachers in schools with an enrollment fewer than one thousand.

Teachers in schools with an enrollment of fifteen hundred or more students had a significantly higher level of satisfaction with the

instructional program than did teachers in schools with fewer than seven hundred and fifty students (Table 16).

Table 15

Mean Satisfaction Scores, Significant Differences And Hypothesis Rejection by Type of School for the Category Concerned with the Instructional Program

Means & Comparisons Rejecting the Hypothesis		Means and Significantly Different Comparisons			
		Senior High	Combined Jr. & Sr. Hi.	Combined Elem. & Jr. Hi.	Junior High
	Senior High	3.889	-	Reject	Reject
	Combined Jr. & Sr. High	-	3.611	-	-
	Combined Elem. & Jr. High	.05	-	3.167	-
	Junior High	.05	-	-	3.048

Table 16

Mean Satisfaction Scores, Significant Differences And Hypothesis Rejection by Enrollment for the Category Concerned with the Instructional Program

Means and Comparisons Rejecting the Hypothesis		Means and Significantly Different Comparisons				
		1,000 - 1,500	1,500 +	750 - 1,000	Under 350	350 - 750
	1,000 - 1,500	4.062	-	Reject	Reject	Reject
	1,500 +	-	3.825	-	Reject	Reject
	750 - 1,000	.05	-	3.350	-	-
	Under 350	.05	.05	-	3.167	-
	350 - 750	.05	.05	-	-	3.139

When the demographic variable concerned with the size of the physical education department was used to group the teachers, the data revealed that departments with more than six teachers were the most satisfied group of physical education teachers. Table 17 shows that they were only significantly different, however, from staff teachers who worked in departments with one to three teachers.

Table 17

Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Size of Department for the Category Concerned with the Instructional Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons		
		6 Plus Teachers	4 or 5 Teachers	1 to 3 Teachers
	6 Plus Teachers	3.762	-	Reject
	4 or 5 Teachers	-	3.386	-
	1 to 3 Teachers	.05	-	3.149

Finally, those teachers teaching in grades ten to twelve indicated a significantly higher mean score for satisfaction with the instructional program than did those teachers teaching in grades seven to nine (Table 18).

When the physical education teachers were grouped using the variables pertaining to age, a significant difference was produced for comparisons regarding the extra curricular program. Table 19 indicates that those teachers in the age category of twenty-nine and thirty-six

years reported a significantly higher mean satisfaction score than did those teachers in the age category of twenty-one to twenty-eight.

Table 18

Mean Satisfaction Scores, Significant Differences and Hypothesis Rejection by Grades for the Category Concerned with the Instructional Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons	
		Grades 10 to 12	Grades 7 to 9
	Grades 10 to 12	3.956	Reject
	Grades 7 to 9	.05	3.152

Table 19

Mean Satisfaction Scores, Significant Differences And Hypothesis Rejection by Age for the Category Concerned with the Extra Curricular Program

Means & Comparisons Rejecting the Hypothesis		Means & Significantly Different Comparisons		
		29 to 36 Years	37 Plus Years	21 to 28 Years
	29 to 36 Years	3.305	-	Reject
	37 Plus Years	-	3.047	-
	21 to 28 Years	.05	-	2.813

THE RELATIONSHIP BETWEEN DISCREPANCY AND SATISFACTION OR DISSATISFACTION

Hypothesis Three states there will be no relationship between measures of discrepancy on the job factors, and the measures of satisfaction on the same job factors for physical education teachers.

An analysis of the data using S. P. S. S. Pearson Correlation indicated a negative relationship for each of the thirty-five job factors.

Table 20 indicates that all of the correlation coefficients are negative and significant at the .001 level. The correlations between satisfaction and discrepancy on each job factor are generally high with only three factors: 'the type of teaching assignments you have been given in physical education', 'the relationship you have with the students you teach', and 'the security of your job', having a correlation coefficient less than minus 0.5.

Hypothesis Three was rejected since the discrepancy that the teacher perceives on each of the job factors is negatively related to the satisfaction response indicated on the same job factors.

IMPORTANCE DATA

Individual Job Factor Data

Respondent frequencies, means, and standard deviations were computed for each of the thirty-five job factors using the S. P. S. S. Program Frequencies and are represented in Table 21. Using a four point scale ranging from not at all important to very important, the physical education teachers indicated an importance score between fairly important and very important for twenty-four of the thirty-five job factors, and none of the factors received a mean score at the not at all important level of the importance scales.

Table 20

Pearson Correlation Coefficients and Mean Scores for Discrepancy and Satisfaction Responses to the Job Factors

Job Factor Number	Mean Discrepancy Score	Mean Satisfaction Score	Correlation	Job Factor Number	Mean Discrepancy Score	Mean Satisfaction Score	Correlation
1	2.744	2.833	-0.7515	18	1.933	3.722	-0.7709
2	2.422	3.322	-0.7053	19	2.311	3.444	-0.6755
3	1.644	3.911	-0.387	20	3.033	2.844	-0.6832
4	2.622	3.022	-0.8082	21	2.722	2.900	-0.6929
5	1.611	4.244	-0.4852	22	2.311	3.389	-0.7400
6	1.689	4.044	-0.5914	23	2.511	3.200	-0.6055
7	1.911	3.722	-0.5317	24	2.644	2.911	-0.6979
8	2.967	2.611	-0.5824	25	1.400	4.189	-0.4750
9	2.956	2.633	-0.7658	26	2.911	2.622	-0.7018
10	2.511	3.156	-0.7706	27	1.311	4.444	-0.5062
11	2.011	3.567	-0.7071	28	1.667	4.289	-0.5135
12	2.467	2.978	-0.5829	29	1.500	4.356	-0.6018
13	3.011	2.622	-0.7313	30	2.322	3.044	-0.6681
14	2.789	2.922	-0.5727	31	2.433	2.989	-0.6271
15	2.033	3.700	-0.5791	32	2.156	3.433	-0.7156
16	3.089	2.722	-0.8373	33	2.311	3.278	-0.7089
17	3.367	2.489	-0.6143	34	2.133	3.678	-0.7089
				35	2.911	2.644	-0.6850

Table 21

RANKED FREQUENCY DISTRIBUTION, MEANS AND STANDARD DEVIATIONS FOR IMPORTANCE SCORES

Job Factor	Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4	No Response	Means	S.D.
The relationship you have with the students you teach		1 (1)	10 (11)	79 (88)		3.867	.37
The autonomy you have to make your own decisions regarding the method by which you teach		4 (4)	18 (20)	68 (76)		3.711	.54
Your assigned overall teaching load	1 (1)	3 (3)	23 (26)	63 (70)		3.644	.60
The facilities and equipment available for your physical education classes		3 (3)	31 (35)	56 (62)		3.589	.56
The average size for your physical education classes		1 (1)	36 (40)	53 (59)		3.578	.52
The disciplinary power you have in order to control the behaviour of your students	1 (1)	3 (3)	31 (35)	55 (61)		3.556	.62
Your personal relationship with fellow teachers	1 (1)	7 (8)	28 (31)	54 (60)		3.500	.69
The assistance and cooperation you receive from your immediate superior		8 (9)	33 (37)	49 (54)		3.456	.66

Table 21 (Continued)

Job Factor	Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4	No Response	Means	S.D.
The opportunities for personal growth and development through your job as a physical education teacher	1 (1)	7 (8)	34 (38)	48 (53)		3.443	.69
The autonomy you have to make your own decisions regarding the content of your instructional program	1 (1)	7 (9)	36 (40)	46 (51)		3.411	.68
The amount of preparation time you are allotted		9 (10)	39 (43)	42 (47)		3.367	.66
The teaching profession as a satisfier of personal career needs		8 (9)	37 (41)	44 (49)	1 (1)	3.367	.74
The type of teaching assignments you have given in physical education	1 (1)	11 (12)	36 (40)	41 (46)	1 (1)	3.278	.80
Special relief time you receive for your involvement in the physical education extracurricular program	1 (1)	17 (19)	31 (34)	41 (46)		3.244	.79
The present curriculum content in your physical education program	2 (2)	6 (7)	47 (52)	34 (38)	1 (1)	3.233	.77

Table 21 (Continued)

Job Factor	Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4	No Response	Means	S.D.
The involvement of fellow physical education teachers in the physical education extracurricular program	3 (3)	16 (18)	33 (37)	38 (42)		3.178	.84
The personal recognition you receive from students for the work you do	3 (3)	12 (13)	42 (47)	33 (37)		3.167	.78
The time you are required to spend on physical education extracurricular activities	2 (2)	15 (17)	40 (44)	33 (37)		3.156	.78
The existing budget allotment for your physical education instructional program	1 (1)	12 (14)	46 (51)	30 (33)	1 (1)	3.144	.77
The salary you receive when you consider your experience and professional training	1 (1)	20 (22)	35 (39)	34 (38)		3.133	.79
The personal recognition you receive from your immediate superior for the work you do	3 (3)	16 (18)	44 (49)	27 (30)		3.056	.78
The number of students actively participating in the physical education extracurricular program	6 (7)	15 (17)	39 (43)	30 (33)		3.033	.88

Table 21 (Continued)

Job Factor	Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4	No Response	Means	S.D.
The availability of opportunities for professional growth and development through your job	2 (2)	22 (24)	39 (43)	27 (30)		3.011	.80
The security of your job	6 (7)	22 (24)	28 (31)	34 (38)		3.000	.95
The status accorded those teaching physical education by the teaching profession	9 (10)	16 (18)	33 (37)	32 (36)		2.978	.97
The involvement of non-physical education teachers in the physical education extracurricular program	2 (2)	29 (32)	33 (37)	26 (29)		2.922	.84
The personal recognition you receive from fellow teachers for the work you do	5 (6)	19 (21)	46 (51)	20 (22)		2.900	.80
The facilities and equipment available for physical education extracurricular activities	4 (4)	26 (29)	35 (39)	25 (28)		2.900	.86
The budget allocation for extracurricular activities	7 (8)	27 (30)	38 (42)	18 (20)		2.744	.87

Table 21 (Continued)

Job Factor	Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4	Response	Means	S.D.
The opportunity you have for promotion and advancement in your job as a physical education teacher	6 (7)	25 (28)	42 (47)	16 (18)	1 (1)	2.733	.87
The competency of professional physical education organizations in satisfying the needs of physical education teachers at the junior and senior high school level	8 (9)	28 (31)	38 (42)	16 (18)		2.689	.87
The vareity of activities in the physical education extra-curricular program	6 (7)	32 (36)	37 (41)	15 (17)		2.678	.83
The status accorded those teaching physical education by the community	9 (10)	34 (38)	35 (39)	12 (13)		2.556	.85
The personal recognition you receive from the community for the work you do	14 (16)	42 (47)	26 (29)	8 (9)		2.311	.84
Community input into the overall physical education program	13 (14)	43 (48)	25 (28)	7 (9)	2 (2)	2.244	.88
				OVERALL MEAN IMPORTANCE SCORE		3.140	

( ) - indicates percentage frequency responses

The job factors reported to be the most important to the physical education teachers was concerned with the 'relationship teachers had with the students they teach'. This factor received a mean score of 3.867 and eighty-eight percent of the responses were recorded at the very important level of the scales.

The physical education teachers regarded the factor related to 'the autonomy over teaching methods' to be the second most important factor. This factor had a mean score of 3.711 and seventy-six percent of the teachers recorded a very important score. The first fourteen job factors represented in Table 21 all had their mode in the very important level of the importance scales. Only two of the thirty-five factors had a mode in the slightly important level and none of the thirty-five factors had their mode in the not at all important level of the questionnaire.

The physical educators recorded the lowest mean score for importance on the factor concerned with 'community input into the physical education program'. Although this score was the lowest importance score, with a mean of 2.444, it nevertheless represented a response between slightly important and fairly important.

The four job categories used to test the hypotheses were ranked on the basis of their mean scores on the importance questionnaire. Table 22 represents the ranked order of the means for each category.

The results indicate that physical education teachers report the instructional program as being the most important category. Psychological needs are reported to be next in importance with the extra curricular program and the environmental category being least important.

Table 22

Rank Order of Mean Importance Scores for Grouped Factors

Job Category	Mean	Rank
Instructional Program	3.473	1
Psychological Needs	3.100	2
Extracurricular Program	2.982	3
Environmental Category	2.937	4

H.6

Hypothesis Six stated that there will be no significant difference in the reported importance between grouped job factors concerned with the physical education instructional program, the extracurricular program, the psychological needs category, and the general environmental category for physical education teachers.

The S. P. S. S. One Way Anova with repeated measures program was utilized to test the hypothesis, together with the Duncan Multiple Range Analysis to determine which groups differed significantly.

Appendix D indicates the analysis of variance between groups and shows that the groups were significantly different at the .001 level of significance.

The mean scores for each group of factors and the differences between the means for each comparison were shown in Table 23. The table also indicates whether the differences between the means for each comparison were significant at the .05 level, and whether the hypothesis could be accepted on the basis of each comparison.

The result of the six comparisons indicated that only the comparison between the environmental category and the extracurricular program

supported the hypothesis. The table also shows that where the instructional program was compared to any of the remaining three categories, the actual difference was significantly greater than any other comparisons not involving the instructional program.

Table 23

The Duncan Multiple Range Analysis of Importance Means for Grouped Factors

Comparison of Job Categories	[redacted]s	Actual Difference	Significant at .05 Level	Accept H.6
Psychological Needs Instructional Program	3.100 3.473	.373	Yes	No
Psychological Needs Environmental Category	3.100 2.937	.163	Yes	No
Psychological Needs Extracurricular Program	3.100 2.983	.117	Yes	No
Instructional Program Environmental Category	3.473 2.937	.536	Yes	No
Instructional Program Extracurricular Program	3.473 2.983	.490	Yes	No
Environmental Category Extracurricular Program	2.937 2.983	.046	No	Yes

H.7

Hypothesis Seven states that there will be no significant difference in the importance attached to the physical education instructional program, the extracurricular program, the psychological need category, and the general environmental category, when physical education teachers are grouped on the basis of the following demographic and biographic variables: type of school, enrollment of school, age, sex, professional training, years of teaching in present school, size of the physical education department, level at which physical education teacher teaches physical education classes, coaching duties, teaching load of physical education classes.

This hypothesis was tested by using the S. P. S. S. One Way Analysis of Variance, which also included the Duncan Multiple Range test to indicate differences in the means between all comparisons for each demographic and biographic variable. Those differences shown to be significant at the .05 level are discussed further.

There was only one comparison in which a significant difference occurred between the groups of teachers on the importance scales. When the teachers were grouped on the basis of the grades to which they taught physical education, significant differences occurred on the importance each group attached to the environmental factors. Table 24 indicates that physical education teachers teaching grades seven to nine reported that they considered the general environmental factors to be significantly more important than did those teachers who taught grades ten to twelve. This comparison was the only comparison which allowed a rejection of the hypothesis.

Table 24

Mean Importance Scores, Significant Differences And Hypothesis Rejection by Grades Taught For Job Factors Concerned with the General Environment

Means & Comparisons Rejecting the Hypothesis	Means & Significantly Different Comparisons	
	Grades 7 to 9	Grades 10 to 12
Grades 7 to 9	3.082	.05
Grades 10 to 12	.05	2.800

Chapter 5

DISCUSSION, SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

DISCUSSION

The Questionnaire

The Job Situation Questionnaire was designed to collect information pertaining to the job situations of physical education teachers in the Edmonton Public, and Separate School systems. The questionnaire was completed and returned by ninety of a possible one hundred and fifty respondents. Of 9,450 possible item responses, only twenty were 'no response'. This indicated that the questionnaire was easy to understand, and contained no questions that could be considered offensive or threatening to the respondents. A small number of the respondents, did, however, offer some criticism of the length of the questionnaire, and suggested that the repititious nature of the Discrepancy, Satisfaction, and Importance instruments made the completion of the questionnaire a lengthy exercise.

For the purpose of future investigations using this questionnaire, it would be possible to exclude the Importance section, since this is not necessary for determining the satisfaction of respondents, and was used solely to determine whether the job factors selected for the study were regarded to be important by the physical education teachers. Further comments were made concerning the response scale on the Satisfaction questionnaire. It was suggested that the five point scale did

not adequately allow for all possible responses, and the perceived difference between slightly satisfied and completely satisfied, or slightly dissatisfied and completely dissatisfied, were significantly large to warrant another response level for satisfaction and dissatisfaction.

Discrepancy

The discrepancy scores reported on the thirty-five job factors used in the questionnaire, indicated the difference between what an individual perceived as existing in the job, and what was actually preferred for the job factors. The five point response scale, ranging from 'no discrepancy' to 'extreme discrepancy' was utilized for the study.

The results of the data analysis indicated that physical education teachers perceived a varying range of discrepancy on the job factors. An observation of the response frequencies (Table 3), and the ranking of the job categories (Table 4) clearly indicated that the job factors which resulted in the largest discrepancy for the physical education teachers, were those concerned with the extracurricular program. Of particular concern were the factors regarding 'relief time received for involvement in the extracurricular program', 'the involve- of non-physical education teachers in the extracurricular program', and 'the budget allocation for the extracurricular program'. These results were not surprising, in view of the fact that many physical education teachers are often required to be involved in the extracurricular program, even though this is, in most cases, not recognized as a job function for which they are paid. They often receive little in the way of compensation or relief time for their involvement, and it is infrequent that similar demands are made on teachers in other subject areas to become involved in the physical education extracurricular program.

With respect to the budget allocation for the extracurricular program, this reported discrepancy by the teachers may have occurred because of perceived inadequacies of the budget, or because this program is often controlled by the student council, or a student administered body. Thus, the allocation of monies for the extracurricular program is frequently out of the control of the physical education department, and, as a result, they may have a tendency to look upon this external financial control with a negative and skeptical attitude. This attitude might have affected the judgements the teachers made concerning this factor. Significant differences were observed between the mean discrepancy scores of the teachers for the four job categories. The extracurricular program received the highest mean discrepancy score, and was significantly different from the other three categories. The psychological need category received the lowest score, and indicated that the psychological needs of the teachers were fulfilled to a greater degree than were the other three job categories.

When the physical education teachers were grouped on the basis of the demographic and biographic variables, computed significant differences existed between certain groupings within each of the demographic and biographic variables when the reported discrepancy scores for the instructional program and the extracurricular program were considered. With respect to the instructional program, significant differences were found to exist within the variables considering the type of school, enrollment of the school, the size of the teaching staff of the physical education department, and the grades taught. The analysis showed that junior high school teachers indicated more discrepancy than senior high school teachers; schools with small enrollments and small physical edu-

cation teaching departments showed more discrepancy than schools with large enrollments and a large teaching staff. It would appear that in the majority of cases, schools with small enrollments, and small physical education teaching departments would represent the junior high school level in the public and separate school systems. Assuming this to be a valid observation, it is probable that the categories which reported the significantly higher discrepancy scores represented the same group of teachers (junior high school teachers), and the categories reporting the significantly lower discrepancy scores represented another group of teachers (senior high school teachers). The reasons for these results are not difficult to comprehend when one considers the individual job factors composing the instructional program at the different levels. For the junior high schools with small enrollments and the schools with small physical education departments, it is fair to state that generally, the overall teaching loads are greater, the teaching assignments are less flexible, there is little or no preparation time, and the budget is small when compared to the senior high schools which have larger enrollments and staff size. In addition, the phsycial education programs are usually totally compulsory at the junior high school level, and result in some problems with discipline and personal relationships. At the senior high school level, however, the program is somewhat optional in grades eleven and twelve, and it might be speculated that this would reduce the discipline problems since the program would attract only those students with a genuine interest in the subject area. Finally, because of the budget restrictions mentioned above, the physical education program in the junior high schools is often less varied and therefore, less appealing than the programs offered at the senior high school level.

Significantly different discrepancy scores occurred between the groupings within the biographic and demographic variables concerned with age and type of school when the teachers considered the extracurricular program. The age category of twenty-one to twenty-eight indicated the highest discrepancy score, and proved significantly different from the age category of twenty-nine to thirty-six. This result was not surprising since the former category would include beginning teachers, and junior staff teachers who would probably carry the heaviest work load in the extracurricular programs. The least discrepancy was recorded by the teachers in the age category of twenty-nine to thirty-six and again is not surprising since these teachers, comparatively speaking, would be senior staff teachers who have gradually acquired the level of involvement in the extracurricular program that is equal to, or close to approaching, their preferred levels of involvement.

Satisfaction

On the satisfaction scale ranging from one to five, the overall mean satisfaction score of 3.31 for the thirty-five job factors indicated that the teachers were in a position between neither satisfied nor dissatisfied, and slightly satisfied with their jobs. The mean scores for the thirty-five factors in Table 12 indicated that the teachers were neither completely satisfied nor completely dissatisfied with any of the thirty-five job factors used in the questionnaire.

A ranking of the mean scores for the four job categories (Table 13) revealed that the physical education teachers were most satisfied with the psychological need category, with less satisfaction being recorded for the instructional program, the environmental category, and the extracurricular program, respectively. Also, since each

job category was significantly different from all others, the rank order of the categories recorded for the study sample can be generalized to the total population of physical education teachers in the Edmonton Public and Separate School Systems.

The biographic and demographic variables which resulted in the significantly different scores on the instructional program category of the discrepancy questionnaire were also responsible for the significantly different scores on the instructional program category of the satisfaction questionnaire. These variables included the type of school, the enrollment of the school, the size of the department, and the grades taught.

The groupings within the variable concerned with age differed significantly on the satisfaction scores recorded for the job factors of the extracurricular program. The age category including teachers of twenty-nine to thirty-six years of age were significantly more satisfied with the extracurricular program than the teachers in the category including teachers of twenty-one to twenty-eight years of age.

The job categories which recorded the highest discrepancy scores on the discrepancy questionnaire recorded the lowest satisfaction scores on the satisfaction questionnaire. Alternatively, the categories which recorded the lowest discrepancy scores, recorded the highest satisfaction scores. This was achieved in all cases and supports Locke's theory, which suggests that satisfaction scores and discrepancy scores are inversely related. The satisfaction responses are interpreted as the emotional reaction to the perceived level of discrepancy between what exists in the job, and what the teachers would prefer to have existing. Thus, as the amount of discrepancy increases, the level of satisfaction decreases, and vice versa.

The Relationship Between Discrepancy and Satisfaction

The major concept present in Locke's discrepancy model is the relationship that exists between satisfaction and discrepancy. Locke has proposed that as the perceived discrepancy between existing and preferred amounts of a job factor decrease in the job, there is a resulting increase in the feelings of satisfaction for that factor, and conversely, as discrepancy increases, dissatisfaction increases. Therefore, the theory proposes an inverse relationship between satisfaction and discrepancy.

The Pearson correlation coefficient computations for the discrepancy and satisfaction responses for the thirty-five job factors indicated that negative relationships significant at the .001 level, existed for all of the job factors. Also, observation of the mean discrepancy and satisfaction scores for the thirty-five factors, and the mean discrepancy and satisfaction scores for the four job categories revealed that a tendency did exist for satisfaction to increase as discrepancy decreased, and vice versa.

The basic premise of Locke's discrepancy model is that satisfaction and discrepancy are interrelated, and furthermore, that a perception of no discrepancy on a job factor will result in complete satisfaction for that factor. Although the mean scores for the teachers did not indicate a no discrepancy, nor a completely satisfied response on any of the job factors, an observation of the frequency distributions on the discrepancy and satisfaction questionnaires revealed that ten of the twelve job factors, which had a mode score at the no discrepancy level, also had a mode score at the completely satisfied level on the satisfaction questionnaire. This result would lend further support to the discrepancy-satisfaction relationship proposed by Locke.

Importance

The frequency distribution for importance responses indicated that none of the thirty-five job factors were considered not at all important by the teachers. A major issue in the contract bargaining between the school teachers association and the school boards has been the matter of salary. It is, therefore, surprising that salary is ranked twentieth in importance, and regarded as being only fairly important. This may suggest that physical education teachers regard salary as a low priority in their overall needs.

The most important job factors for the physical education teachers were the factors concerned with the instructional program. Since this is the primary teaching function of physical education teachers, it is of some consequence that these factors are most important. It is hoped that this would mean a desire by the teachers to concentrate their efforts on fulfilling the objectives for that program.

SUMMARY

Job satisfaction has been described in a variety of ways, but researchers are generally agreed that job satisfaction is an emotional response to objects or situations encountered by individuals in their job.

There has been some disagreement between researchers concerning the influence that job related factors have on determining one's satisfaction or dissatisfaction on the job. Some investigators believed that environmental factors were the major factors in determining satisfaction and dissatisfaction, and others believed that psychological factors within the individual were the determinants of job satisfaction

and dissatisfaction. Recent investigations have shown that job satisfaction and dissatisfaction is a result of the interrelationship between environmental and psychological factors. Furthermore, there is a belief by some researchers that a job factor can contribute to both satisfaction and dissatisfaction (the one factor theory), while other investigators have proposed that certain factors contribute to satisfaction and different factors contribute to dissatisfaction (the two factor theory). A review of the job satisfaction literature has suggested that the one factor theory is more commonly used by researchers investigating the relationship between job factors, and job satisfaction.

Many studies of job satisfaction have been concerned with determining the relationship between reported levels of satisfaction and elements in the job situation. These studies have shown correlations between specific job factors and feelings of satisfaction and dissatisfaction, but they have failed to explain why these correlations existed. The investigations have not attempted to explain the process by which feelings of satisfaction and dissatisfaction are determined.

The concept of 'discrepancy' and its relationship to job satisfaction has been used extensively by Porter (1961), Loftquist and Dawis (1969), and Edwin Locke (1969). Researchers who favoured the discrepancy model contend that satisfaction or dissatisfaction is dependent on the discrepancy between what one perceives as existing in the job, and what one prefers to exist. The discrepancy model attempts to identify the relationship between a cognitive evaluation of the job situation, and the resulting emotional response of satisfaction or dissatisfaction.

Although numerous job satisfaction studies have been carried out in industrial and educational institutions, only a small number have been related to physical educators, and still fewer have related specifically to physical education teachers working at the elementary, junior high, or senior high school levels. It was felt, therefore, that a job satisfaction study pertaining to physical educators at these levels would contribute significantly to the existing research in this area.

Seven hypotheses were stated in the null form, and were designed to identify: a) the discrepancy between what physical education teachers perceived as existing, and what they preferred to exist for the thirty-five job factors, and the four job categories, b) the relationship between physical education teachers reported discrepancy and selected biographic and demographic variables, c) the satisfaction and dissatisfaction reported by physical education teachers with job factors, and job categories within their job situation, d) the relationship between reported satisfaction and dissatisfaction and selected biographic and demographic variables, e) the relationship between reported discrepancy and reported satisfaction and/or dissatisfaction, f) the importance attached to specific job factors, and job categories, and g) the relationship between importance and selected biographic and demographic variables.

Methodology

The Job Situation Questionnaire was designed to collect data concerning discrepancy, satisfaction, and importance for thirty-five job factors present in the physical education teacher's work situation. In addition, the questionnaire collected specific biographic and demographic information about the teachers and the schools in which they

worked. The questionnaires were distributed by mail and returned in a pre-addressed and stamped envelope. The data was transferred to IBM cards and analyzed by computer using the S. P. S. S. Program Frequencies, Pearson Correlation, and Anova One Way Analysis with Repeated Measures program.

Results

Resulting from the analysis of data, many of the null hypotheses were rejected.

Significant differences were found to exist between the job categories concerned with the instructional program, the extracurricular program, the psychological need category, and the environmental category, for the discrepancy, satisfaction, and importance responses reported by the physical education teachers.

The analysis of the relationship between the demographic and biographic variables and discrepancy, revealed that junior high school physical education teachers reported significantly more discrepancy with the instructional program than did the senior high school teachers. The teachers in schools with enrollments of between 350 to 750 students perceived significantly more discrepancy with the instructional program than did those teachers in schools with more than 1,000 students. Teachers in physical education departments with one to three teachers perceived more discrepancy with the instructional program than did those staff teachers in departments with more than six teachers. With respect to the extracurricular program, teachers between the ages of twenty-one and twenty-eight perceived significantly more discrepancy than teachers between the ages of twenty-nine and thirty-six.

Observations of the reported satisfaction scores revealed that the same biographic and demographic groups were significantly different when considering their satisfaction with the instructional program. However, the groups that indicated the highest discrepancy scores were the groups who reported the lowest satisfaction scores, and vice versa. With respect to the extracurricular program, those teachers between the ages of twenty-nine and thirty-six reported the highest satisfaction scores, and those between the ages of twenty-one and twenty-eight reported the lowest satisfaction scores. In addition, the analysis revealed that the group of teachers over the age of thirty-seven indicated less satisfaction than the twenty-nine to thirty-six age group, but not as little as the twenty-one to twenty-eight age group.

A significant negative relationship was found to exist between the discrepancy and satisfaction score for all thirty-five job factors.

These results lend support to Locke's model, which suggests that as discrepancy decreases, satisfaction increases for the job factors.

An analysis of the importance data indicated that none of the thirty-five job factors were unimportant to the teachers, and twenty-four of the factors had their mode frequency response at the fairly important or very important levels of the importance questionnaire. With regard to the four job categories, the teachers reported that the instructional program was most important, followed in descending order, by the psychological need category, the extracurricular program, and the environmental category. Only one significantly different comparison occurred between the biographic and demographic groups when the categories were considered. Those teachers who taught physical education

in grades seven to nine considered the general environmental category to be more important than those teachers teaching in grades ten to twelve.

CONCLUSIONS

On the basis of these results, several conclusions can be made which are applicable to physical education teachers in the Edmonton school systems.

1. Concerning the discrepancy between preferred and perceived conditions of the job, physical education teachers perceive a significantly higher discrepancy for job factors related to the extracurricular program than for job factors related to the instructional program, the psychological need category, or the environmental category.

2. Physical education teachers are more satisfied with the job factors related to their psychological needs than they are with the instructional program, environmental factors, or the extracurricular program.

3. Senior high school physical education teachers are significantly more satisfied and perceive significantly less discrepancy between what they perceive as existing and what they would prefer for the instructional program, than are junior high school or combined elementary and junior high school physical education teachers.

4. Physical education teachers in schools with an enrollment of more than one thousand students are more satisfied and perceive less discrepancy with the instructional program than teachers in schools with less than one thousand students.

5. As the staff size of the physical education department decreases, there is a decrease in satisfaction, and a corresponding increase in discrepancy with the instructional program.

6. There is an increase in the level of satisfaction, and a decrease in the perceived discrepancy for the extracurricular program, as physical education teachers increase in age. However, after the age of thirty-seven, the level of discrepancy increases and the level of satisfaction decreases slightly.

7. Physical education teachers in combined elementary and junior high schools perceive a significantly greater discrepancy between preferred and perceived existing conditions, with respect to the extracurricular program than do teachers in senior high schools and combined junior and senior high schools.

8. There is an inverse relationship between satisfaction and the discrepancy between preferred and perceived existing conditions in the job situation of physical education teachers. As discrepancy decreases, satisfaction increases.

9. Physical education teachers regard the job factors related to the instructional program as being more important than the job factors related to the psychological needs category, the extracurricular program, or the environmental category.

10. Physical education teachers who instruct in grades seven to nine, attach significantly more importance to the environmental factors than do the teachers who teach students in grades ten to twelve.

RECOMMENDATIONS

The findings of this study have shown that the discrepancy, satisfaction, and importance reported by physical education teachers towards situations in their job varies depending on the job factors or job categories being considered. It has also shown that the reported

discrepancy, satisfaction, and importance was affected by specific biographic and demographic variables related to the physical education teachers and their work environment. Finally, the study indicated that an inverse relationship existed between discrepancy and satisfaction. There are, however, a number of areas which require investigation in order to ensure a more comprehensive knowledge of job satisfaction and its relationship to the physical education profession. Suggestions for further research are as follows:

1. There is a distinct possibility that certain elements of the physical education job situation are common to physical educators at all institutional levels. These elements might be identified for the purpose of facilitating a comparative study concerning the job satisfaction of physical educators at these different levels.

2. Further comparative studies might be attempted between physical education teachers working in the rural communities and those working in the urban centres in order to determine those job factors which are of particular concern to all physical education teachers and those which are specific to the rural or urban environment.

3. Many elements of the physical education teachers' job are also common to teachers in other subject areas within the school. A comparative study between subject areas would reveal whether satisfaction/dissatisfaction responses reported by physical education teachers are specific to thier subject area or whether their feelings are shared by other teachers.

4. Locke's discrepancy model of job satisfaction indicates that the importance an individual holds for a job factor will influence the strength of the satisfaction/dissatisfaction response. A study might be attempted utilizing Locke's discrepancy model to determine the in-

fluence that importance has in the correlation between discrepancy, satisfaction, and importance responses.

5. From a practical standpoint, it would be worthwhile to develop and test techniques which might attempt to reduce levels of discrepancy and dissatisfaction with individual job factors, job categories, and the total job environment.

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APPENDIX A

JOB SITUATION QUESTIONNAIRE

AND

COVERING LETTERS TO

PHYSICAL EDUCATION TEACHERS

FACULTY OF PHYSICAL EDUCATION
THE UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA T6G 2H9

DEPARTMENT OF PHYSICAL EDUCATION

November 25, 1975

Dear Colleague:

Mr. Tom Kendall, one of our graduate students at the University of Alberta, is presently compiling data regarding the job satisfaction of physical educators in the Edmonton School System. This study will only be successful if a majority of us return the enclosed questionnaire. This data will allow Tom to make many valuable observations and recommendations regarding the work environment of our profession.

For this reason, I encourage you to complete and return the enclosed questionnaire. Thanking you in advance for your cooperation.

Sincerely,

Barry Mitchelson

E. Barry Mitchelson, Ph.D.
Associate Professor

EBM/sp
Enclosure

Department of Physical Education,
University of Alberta,
Edmonton, Alberta.

January 22nd, 1976.

Dear Colleague,

As a thesis topic directed at the completion of my Masters degree, I am investigating job attitudes among physical education teachers in the junior and senior high schools in the Edmonton Public and Separate School Systems.

An invitation is extended to you to be part of this study. The questionnaire enclosed is designed to collect attitudes on factors closely related to your job situation and should take approximately 30-40 minutes to complete.

Since a high percentage return is essential for successful analysis in this research you are asked to return the completed questionnaire at your earliest convenience.

Confidentiality is assured for the respondents and schools participating in this investigation.

I thank you in anticipation for your co-operation with this study.

Yours sincerely,

Thomas J. Kendall

Thomas J. Kendall.

JOB SITUATION QUESTIONNAIRE

FOR

PHYSICAL EDUCATION TEACHERS IN THE

EDMONTON PUBLIC AND EDMONTON SEPARATE SCHOOL SYSTEMS

ADMINISTERED BY:

T. J. Kendall

In Co-operation with the Faculty of

Physical Education, University of Alberta

Edmonton, Alberta

INSTRUCTIONS

Please read the following before completing the questionnaire:

1. The questionnaire should take approximately 30 - 40 minutes to complete.
2. The questionnaire consists of four sections. Please answer all questions in each section.
3. Although the items used in each of the first three sections are identical, the purpose of each section is quite different. You are urged to note carefully the response scale at the head of each page before answering the questions.
4. Please return the completed questionnaire at your earliest convenience in the enclosed stamped envelope to:

Mr. T. J. Kendall
Department of Physical Education,
University of Alberta,
EDMONTON, Alberta.

Thank you for your invaluable assistance.

SECTION 1

DISCREPANCY QUESTIONNAIRE

For the following factors present in your job situation, how great is the 'discrepancy' between what you prefer and what you see as actually existing.

*N.B.: Discrepancy as used in this study means 'the difference between'

No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5

Please circle the most appropriate answer to each job factor below.

1.	The average size for your physical education classes	1	2	3	4	5
2.	Your assigned overall teaching load	1	2	3	4	5
3.	The type of teaching assignments you have been given in physical education	1	2	3	4	5
4.	The facilities and equipment available for your physical education classes	1	2	3	4	5
5.	The relationship you have with the students you teach	1	2	3	4	5
6.	The disciplinary power you have in order to control the behavior of your students	1	2	3	4	5
7.	The present curriculum content in your physical education program	1	2	3	4	5
8.	The existing budget allotment for your physical education instructional program	1	2	3	4	5
9.	The amount of preparation time you are allotted	1	2	3	4	5
10.	The time you are required to spend on physical education extracurricular activities	1	2	3	4	5
11.	The variety of activities in the physical education extracurricular program	1	2	3	4	5

Response Scale

No Discrepancy	Some Discrepancy	Moderate Discrepancy	Large Discrepancy	Extreme Discrepancy
1	2	3	4	5

12.	The facilities and equipment available for physical education extracurricular activities	1	2	3	4	5
13.	The budget allocation for extracurricul activities	1	2	3	4	5
14.	The number of students actively participating in the physical education extracurricular program	1	2	3	4	5
15.	The involvement of fellow physical education teachers in the physical education extracurricular program	1	2	3	4	5
16.	The involvement of non-physical education teachers in the physical education extracurricular program	1	2	3	4	5
17.	Special relief time you receive for your involvement in the physical education extracurricular program	1	2	3	4	5
18.	The assistance and cooperation you receive from your immediate superior	1	2	3	4	5
19.	The teaching profession as a satisfier of personal career needs	1	2	3	4	5
20.	The salary you receive when you consider your experience and professional training	1	2	3	4	5
21.	The opportunity you have for promotion and advancement in your job as a physical education teacher	1	2	3	4	5
22.	The opportunities for personal growth and development through your job as a physical education teacher	1	2	3	4	5

Response Scale

No Discrepancy 1	Some Discrepancy 2	Moderate Discrepancy 3	Large Discrepancy 4	Extreme Discrepancy 5

23.	The availability of opportunities for professional growth and development through your job	1	2	3	4	5
24.	The competency of professional physical education organizations in satisfying the needs of physical education teachers at the junior and senior high school levels	1	2	3	4	5
25.	The security of your job	1	2	3	4	5
26.	Community input into the overall physical education program	1	2	3	4	5
27.	The autonomy you have to make your own decisions regarding the method by which you teach	1	2	3	4	5
28.	The autonomy you have to make your own decisions regarding the content of your instructional program	1	2	3	4	5
29.	Your personal relationship with fellow teachers	1	2	3	4	5
30.	The status accorded those teaching physical education by the community	1	2	3	4	5
31.	The status accorded those teaching physical education by the teaching profession	1	2	3	4	5
32.	The personal recognition you receive from students for the work you do	1	2	3	4	5
33.	The personal recognition you receive from fellow teachers for the work you do	1	2	3	4	5
34.	The personal recognition you receive from your immediate superior for the work you do	1	2	3	4	5
35.	The personal recognition you receive from the community for the work you do	1	2	3	4	5

SECTION TWO

SATISFACTION QUESTIONNAIRE

Please indicate the level of satisfaction or dissatisfaction that you have with each of the factors below.

RESPONSE SCALE

Completely Dissatisfied	Slightly Dissatisfied	Neither Satisfied nor Dissatisfied	Slightly Satisfied	Completely Satisfied
1	2	3	4	5

Please circle the most appropriate answer to each job factor below.

1.	The average size for your physical education classes	1	2	3	4	5
2.	Your assigned overall teaching load	1	2	3	4	5
3.	The type of teaching assignments you have been given in physical education	1	2	3	4	5
4.	The facilities and equipment available for your physical education classes	1	2	3	4	5
5.	The relationship you have with the students you teach	1	2	3	4	5
6.	The disciplinary power you have in order to control the behaviour of your students	1	2	3	4	5
7.	The present curriculum content in your physical education program	1	2	3	4	5
8.	The existing budget allotment for your physical education instructional program	1	2	3	4	5
9.	The amount of preparation time you are allotted	1	2	3	4	5
10.	The time you are required to spend on physical education extracurricular activities	1	2	3	4	5
11.	The variety of activities in the physical education extracurricular program	1	2	3	4	5

Response Scale

	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5
12.	The facilities and equipment available for physical education extracurricular activities	1	2	3	4	5
13.	The budget allocation for extracurricular activities	1	2	3	4	5
14.	The number of students actively participating in the physical education extracurricular program	1	2	3	4	5
15.	The involvement of fellow physical education teachers in the physical education extracurricular program	1	2	3	4	5
16.	The involvement of non-physical education teachers in the physical education extracurricular program	1	2	3	4	5
17.	Special relief time you receive for your involvement in the physical education extracurricular program	1	2	3	4	5
18.	The assistance and cooperation you receive from your immediate superior	1	2	3	4	5
19.	The teaching profession as a satisfier of personal career needs	1	2	3	4	5
20.	The salary you receive when you consider your experience and professional training	1	2	3	4	5
21.	The opportunity you have for promotion and advancement in your job as a physical education teacher	1	2	3	4	5
22.	The opportunities for personal growth and development through your job as a physical education teacher	1	2	3	4	5

Response Scale

	Completely Dissatisfied 1	Slightly Dissatisfied 2	Neither Satisfied nor Dissatisfied 3	Slightly Satisfied 4	Completely Satisfied 5
23. The availability of opportunities for professional growth and development through your job	1	2	3	4	5
24. The competency of professional physical education organizations in satisfying the needs of physical education teachers at the junior and senior high school level	1	2	3	4	5
25. The security of your job	1	2	3	4	5
26. Community input into the overall physical education program	1	2	3	4	5
27. The autonomy you have to make your own decisions regarding the method by which you teach	1	2	3	4	5
28. The autonomy you have to make your own decisions regarding the content of your instructional program	1	2	3	4	5
29. Your personal relationship with fellow teachers	1	2	3	4	5
30. The status accorded those teaching physical education by the community	1	2	3	4	5
31. The status accorded those teaching physical education by the teaching profession	1	2	3	4	5
32. The personal recognition you receive from students for the work you do	1	2	3	4	5
33. The personal recognition you receive from fellow teachers for the work you do	1	2	3	4	5
34. The personal recognition you receive from your immediate superior for the work you do	1	2	3	4	5
35. The personal recognition you receive from the community for the work you do	1	2	3	4	5

SECTION THREE

IMPORTANCE QUESTIONNAIRE

Please indicate how important each of the following factors are in determining the satisfaction or dissatisfaction you have with your job.

RESPONSE SCALE

Not at all Important	Slightly Important	Fairly Important	Very Important
1	2	3	4

Please circle the most appropriate answer to each job factor below.

1.	The average size for your physical education classes	1	2	3	4
2.	Your assigned overall teaching load	1	2	3	4
3.	The type of teaching assignments you have been given in physical education	1	2	3	4
4.	The facilities and equipment available for your physical education classes	1	2	3	4
5.	The relationship you have with the students you teach	1	2	3	4
6.	The disciplinary power you have in order to control the behaviour of your students	1	2	3	4
7.	The present curriculum content in your physical education program	1	2	3	4
8.	The existing budget allotment for your physical education instruction program	1	2	3	4
9.	The amount of preparation time you are allotted	1	2	3	4
10.	The time you are required to spend on physical education extracurricular activities	1	2	3	4
11.	The variety of activities in the physical education extracurricular program	1	2	3	4

Response Scale

Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4

12.	The facilities and equipment available for physical education extracurricular activities	1	2	3	4
13.	The budget allocation for extracurricular activities	1	2	3	4
14.	The number of students actively participating in the physical education extracurricular program	1	2	3	4
15.	The involvement of fellow physical education teachers in the physical education extracurricular program	1	2	3	4
16.	The involvement of non-physical education teachers in the physical education extracurricular program	1	2	3	4
17.	Special relief time you receive for your involvement in the physical education extracurricular program	1	2	3	4
18.	The assistance and cooperation you receive from your immediate superior	1	2	3	4
19.	The teaching profession as a satisfier of personal career needs	1	2	3	4
20.	The salary you receive when you consider your experience and professional training	1	2	3	4
21.	The opportunity you have for promotion and advancement in your job as a physical education teacher	1	2	3	4
22.	The opportunities for personal growth and development through your job as a physical education teacher	1	2	3	4
23.	The availability of opportunities for professional growth and development through your job	1	2	3	4

Response Scale

Not at all Important 1	Slightly Important 2	Fairly Important 3	Very Important 4

24.	The competency of professional physical education organizations in satisfying the needs of physical education teachers at the junior and senior high school levels	1	2	3	4
25.	The security of your job	1	2	3	4
26.	Community input into the overall physical education program	1	2	3	4
27.	The autonomy you have to make your own decisions regarding the method by which you teach	1	2	3	4
28.	The autonomy you have to make your own decisions regarding the content of your instructional program	1	2	3	4
29.	Your personal relationship with fellow teachers	1	2	3	4
30.	The status accorded those teaching physical education by the community	1	2	3	4
31.	The status accorded those teaching physical education by the teaching profession	1	2	3	4
32.	The personal recognition you receive from students for the work you do	1	2	3	4
33.	The personal recognition you receive from fellow teachers for the work you do	1	2	3	4
34.	The personal recognition you receive from your immediate superior for the work you do	1	2	3	4
35.	The personal recognition you receive from the community for the work you do	1	2	3	4

SECTION FOUR

PERSONAL AND PROFESSIONAL DATA

Please indicate your answer to the following questions by placing a check mark beside the appropriate answer.

1. In which of the following types of schools do you presently teach?

   a) Junior High _____
   b) Senior High _____
   c) Combined Junior and Senior High _____
   d) Combined Elementary and Junior High _____
   e) Combined Elementary, Junior, and Senior High _____

2. Approximately what is the enrollment in your school?

   a) Under 350 _____
   b) 350 to 750 _____
   c) 750 to 1,000 _____
   d) 1,000 to 1,500 _____
   e) 1,500 + _____

3. What is your age?

   a) 21 to 28 _____
   b) 29 to 36 _____
   c) 37 to 44 _____
   d) 45 to 52 _____
   e) 53 to 60 _____
   f) 60 + years _____

4. Sex
   a) Male _____
   b) Female _____

5. What is your highest level of professional training?

   a) Less than an undergraduate degree _____
   b) Undergraduate degree in physical education plus professional training in education _____
   c) Undergraduate degree in education with a physical education major _____

d) A graduate degree in physical education _____

e) A graduate degree from another faculty _____

f) Others: Specify _____

_____

6. How long have you taught in the school you presently work in?

a) Less than 3 years _____

b) 4 to 7 years _____

c) 8 to 11 years _____

d) 12 to 15 years _____

e) 15 + years _____

7. What is your position in the department of physical education in your school (two answers may be appropriate if you are a 'salaried' department head).

a) Department Head _____

b) You are one Physical Education teacher in a physical education department comprised of:

1 teacher _____ 6, 7 teachers _____

2, 3 teachers _____ 8 + teachers _____

4, 5 teachers _____

8. What percentage of your teaching load involves the teaching of physical education classes?

a) Less than 50% _____

b) More than 50% _____

9. At what grade level do you teach physical education classes?

a) 7 to 9 _____

b) 10 to 12 _____

c) other _____

10. Do you coach a team that is involved in interschool competition?

Yes _____

No _____

11. In general, how satisfied or dissatisfied are you with your present job?

a) Completely Dissatisfied _____
b) Slightly Dissatisfied _____
c) Neither Satisfied nor Dissatisfied _____
d) Slightly Satisfied _____
e) Completely Satisfied _____

APPENDIX B

FOLLOW-UP LETTER

FACULTY OF PHYSICAL EDUCATION
THE UNIVERSITY OF ALBERTA
EDMONTON, ALBERTA, CANADA T6G 2H9

DEPARTMENT OF PHYSICAL EDUCATION

April 12, 1976

Dear Colleague:

A few weeks ago I mailed the questionnaire entitled "Job Situation Questionnaire" which will be used in connection with my thesis.

The response so far has been good. However, in order to reach the recommended response level for a survey of this nature, it should be higher.

I realize that those of you that have not yet returned the questionnaire are pressured by other work and I apologize for adding my request for your time. As a justification, I can say that in addition to enabling me to complete a degree, the information received from you will help me to make useful recommendations concerning the job situations of people in our profession.

Please excuse the use of this "form letter" and I hope you will forgive my attempt to accelerate communications. If you have mislaid the questionnaire, please feel free to call me at 484-8781 and I will see that you receive a replacement. If you have the questionnaire but do not wish to complete it, please enclose it in the envelope provided and return it so that you are not contacted in the future.

Thank you for your cooperation.

Sincerely

Tom Kendall

Tom Kendall

TK/sp

APPENDIX C

RETURN RATES FOR GROUPINGS WITHIN EACH BIOGRAPHIC AND DEMOGRAPHIC VARIABLE

Return Rates for Groupings Within Each Biographic and Demographic Variable

Variable	Groups	Actual Return Rate	Percentage Return Rate
Type of School	Junior High	28	31
	Senior High	27	30
	Combined Junior & Senior High	5	6
	Combined Elementary & Junior High	29	32
	Combined Elementary, Junior, & Senior High	1	1
Student Enrollment of School	Under 350	10	11
	350 - 750	42	47
	750 - 1000	13	14
	1000 - 1500	11	12
	1500 +	14	16
Age	21 - 28 Years	47	52
	29 - 36 Years	34	38
	37 - 44 Years	6	7
	45 - 52 Years	3	3
	53 - 60 Years	0	0
	60 + Years	0	0
Sex	Male	47	54
	Female	43	66

APPENDIX C (Continued)

Variable	Groups	Actual Return Rate	Percentage Return Rate
Professional Training	Less than an undergraduate degree	2	2
	Undergraduate degree in P.E. plus professional training in education	22	24
	Undergraduate degree in education with a physical education major	33	37
	A graduate degree in physical education	9	10
	A graduate degree from another faculty	9	10
	Others	15	17
Size and Position in Physical Education Department	Department Head	12	13
	Staff teacher in department of:		
	1 teacher	2	2
	2, 3 teachers	43	48
	4, 5 teachers	17	19
	6, 7 teachers	12	13
	8 + teachers	4	5
Percentage of Teaching Load Involving Physical Education Classes	Less than 50%	26	29
	More than 50%	64	71
Grade Levels Taught	7 to 9	49	54
	10 to 12	27	30
	Other	14	16
Coaching Responsibilities	Yes	79	88
	No	10	12

APPENDIX D

ANALYSIS OF VARIANCE

Analysis of Variance of Discrepancy, Satisfaction and Importance Responses Between Grouped Factors

Analysis of Variance of Discrepancy Responses Between Job Categories

Analysis	Means Squared	F	Significance
Within Groups	0.169	24.198	0.001
Between Groups	4.093		

Analysis of Variance of Satisfaction Responses Between Job Categories

Analysis	Means Squared	F	Significance
Within Groups	0.212	20.686	0.001
Between Groups	4.378		

Analysis of Variance of Importance Responses Between Job Categories

Analysis	Means Squared	F	Significance
Within Groups	0.109	48.814	0.001
Between Groups	5.328	48.814	0.001